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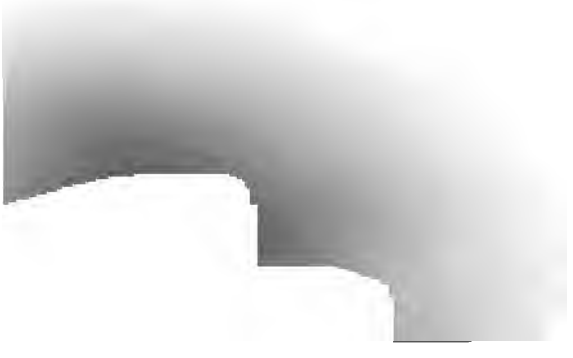

MESSAGE

FROM THE

PRESIDENT OF THE UNITED STATES

TO

THE TWO HOUSES OF CONGRESS

AT THE COMMENCEMENT OF THE

FIRST SESSION OF THE FORTY-FOURTH CONGRESS,

WITH THE

REPORTS OF THE HEADS OF DEPARTMENTS

AND

SELECTIONS FROM ACCOMPANYING DOCUMENTS.

EDITED BY
BEN: PERLEY POORE,
CLERK OF PRINTING RECORDS.

WASHINGTON:
GOVERNMENT PRINTING OFFICE
1875.

Prepared in accordance with the provisions of the Revised Statutes, approved June 23, 1874.

SEC. 75. The Joint Committee on Public Printing shall appoint a competent person, who shall edit such portion of the documents accompanying the annual reports of the Departments as they may deem suitable for popular distribution, and prepare an alphabetical index thereto.

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SEC. 196. The head of each Department, except the Department of Justice, shall furnish to the Congressional Printer copies of the documents usually accompanying his annual report on or before the first day of November in each year, and a copy of his annual report on or before the third Monday of November in each year.

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SEC. 3798. Of the documents named in this section there shall be printed and bound, in addition to the usual number for Congress, the following numbers of copies, namely:

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Second. Of the President's message, the annual reports of the Executive Departments, and the abridgment of accompanying documents, unless otherwise ordered by either House, ten thousand copies for the use of the members of the Senate and twenty-five thousand copies for the use of the members of the House of Representatives.

MESSAGE

OF THE

PRESIDENT OF THE UNITED STATES.

To the Senate and House of Representatives:

In submitting my seventh annual message to Congress, in this centennial year of our national existence as a free and independent people, it affords me great pleasure to recur to the advancement that has been made from the time of the colonies, one hundred years ago. We were then a people numbering only three millions. Now we number more than forty millions. Then industries were confined almost exclusively to the tillage of the soil. Now manufactories absorb much of the labor of the country.

Our liberties remain unimpaired; the bondmen have been freed from slavery; we have become possessed of the respect, if not the friendship, of all civilized nations. Our progress has been great in all the arts; in science, agriculture, commerce, navigation, mining, mechanics, law, medicine, &c.; and in general education the progress is likewise encouraging. Our thirteen States have become thirty-eight, including Colorado, (which has taken the initiatory steps to become a State,) and eight Territories, including the Indian Territory and Alaska, and excluding Colorado, making a territory extending from the Atlantic to the Pacific. On the south we have extended to the Gulf of Mexico, and in the west from the Mississippi to the Pacific.

One hundred years ago the cotton-gin, the steamship, the railroad, the telegraph, the reaping, sewing, and modern printing machines, and numerous other inventions of scarcely less value to our business and happiness, were entirely unknown.

In 1776, manufactories scarcely existed even in name in all this vast territory. In 1870, more than two millions of persons were employed in manufactories, producing more than $2,100,000,000 of products in amount annually, nearly equal to our national debt. From nearly the whole of the population of 1776 being engaged in the one occupation of agriculture, in 1870 so numerous and diversified had become the occupation of our people that less than six millions out of more than forty millions were so engaged. The extraordinary effect produced in our country by a resort to diversified occupations has built a market for the products of fertile lands distant from the seaboard and the markets of the world.

The American system of locating various and extensive manufactories next to the plow and the pasture, and adding connecting railroads and steamboats, has produced in our distant interior country a result noticeable by the intelligent portions of all commercial nations. The ingenuity and skill of American mechanics have been demonstrated at home and

abroad in a manner most flattering to their pride. But for the extraordinary genius and ability of our mechanics, the achievements of our agriculturists, manufacturers, and transporters throughout the country would have been impossible of attainment.

The progress of the miner has also been great. Of coal our production was small; now many millions of tons are mined annually. So with iron, which formed scarcely an appreciable part of our products half a century ago, we now produce more than the world consumed at the beginning of our national existence. Lead, zinc, and copper, from being articles of import, we may expect to be large exporters of in the near future. The development of gold and silver mines in the United States and Territories has not only been remarkable, but has had a large influence upon the business of all commercial nations. Our merchants in the last hundred years have had a success and have established a reputation for enterprise, sagacity, progress, and integrity unsurpassed by peoples of older nationalities. This "good name" is not confined to their homes, but goes out upon every sea and into every port where commerce enters. With equal pride we can point to our progress in all of the learned professions.

As we are now about to enter upon our second centennial—commencing our manhood as a nation—it is well to look back upon the past and study what will be best to preserve and advance our future greatness. From the fall of Adam for his transgression to the present day, no nation has ever been free from threatened danger to its prosperity and happiness. We should look to the dangers threatening us, and remedy them so far as lies in our power. We are a republic whereof one man is as good as another before the law. Under such a form of government it is of the greatest importance that all should be possessed of education and intelligence enough to cast a vote with a right understanding of its meaning. A large association of ignorant men cannot, for any considerable period, oppose a successful resistance to tyranny and oppression from the educated few, but will inevitably sink into acquiescence to the will of intelligence, whether directed by the demagogue or by priestcraft. Hence the education of the masses becomes of the first necessity for the preservation of our institutions. They are worth preserving, because they have secured the greatest good to the greatest proportion of the population of any form of government yet devised. All other forms of government approach it just in proportion to the general diffusion of education and independence of thought and action. As the primary step, therefore, to our advancement in all that has marked our progress in the past century, I suggest for your earnest consideration, and most earnestly recommend it, that a constitutional amendment be submitted to the legislatures of the several States for ratification, making it the duty of each of the several States to establish and forever maintain free public schools adequate to the education of all the children in the rudimentary branches within their

respective limits, irrespective of sex, color, birthplace, or religions; forbidding the teaching in said schools of religious, atheistic, or pagan tenets; and prohibiting the granting of any school-funds, or school-taxes, or any part thereof, either by legislative, municipal, or other authority, for the benefit or in aid, directly or indirectly, of any religious sect or denomination, or in aid or for the benefit of any other object of any nature or kind whatever.

In connection with this important question, I would also call your attention to the importance of correcting an evil that, if permitted to continue, will probably lead to great trouble in our land before the close of the nineteenth century. It is the accumulation of vast amounts of untaxed church-property.

In 1850, I believe, the church-property of the United States which paid no tax, municipal or State, amounted to about $83,000,000. In 1860, the amount had doubled; in 1875, it is about $1,000,000,000. By 1900, without check, it is safe to say this property will reach a sum exceeding $3,000,000,000. So vast a sum, receiving all the protection and benefits of government, without bearing its proportion of the burdens and expenses of the same, will not be looked upon acquiescently by those who have to pay the taxes. In a growing country, where real estate enhances so rapidly with time as in the United States, there is scarcely a limit to the wealth that may be acquired by corporations, religious or otherwise, if allowed to retain real estate without taxation. The contemplation of so vast a property as here alluded to, without taxation, may lead to sequestration without constitutional authority and through blood.

I would suggest the taxation of all property equally, whether church or corporation, exempting only the last resting-place of the dead, and, possibly, with proper restrictions, church-edifices.

Our relations with most of the foreign powers continue on a satisfactory and friendly footing.

Increased intercourse, the extension of commerce, and the cultivation of mutual interests have steadily improved our relations with the large majority of the powers of the world, rendering practicable the peaceful solution of questions which from time to time necessarily arise, leaving few which demand extended or particular notice.

The correspondence of the Department of State with our diplomatic representatives abroad is transmitted herewith.

I am happy to announce the passage of an act by the General Cortes of Portugal, proclaimed since the adjournment of Congress, for the abolition of servitude in the Portuguese colonies. It is to be hoped that such legislation may be another step toward the great consummation to be reached, when no man shall be permitted, directly or indirectly, under any guise, excuse, or form of law, to hold his fellow-man in bondage. I am of opinion also that it is the duty of the United States, as contributing toward that end, and required by the spirit of the age in which

we live, to provide by suitable legislation that no citizen of the United States shall hold slaves as property in any other country or be interested therein.

Chili has made reparation in the case of the whale-ship Good Return, seized without sufficient cause upward of forty years ago. Though she had hitherto denied her accountability, the denial was never acquiesced in by this Government, and the justice of the claim has been so earnestly contended for that it has been gratifying that she should have at last acknowledged it.

The arbitrator in the case of the United States steamer Montijo, for the seizure and detention of which the Government of the United States of Colombia was held accountable, has decided in favor of the claim. This decision has settled a question which had been pending for several years, and which, while it continued open, might more or less disturb the good understanding which it is desirable should be maintained between the two republics.

A reciprocity treaty with the King of the Hawaiian Islands was concluded some months since. As it contains a stipulation that it shall not take effect until Congress shall enact the proper legislation for that purpose, copies of the instrument are herewith submitted, in order that if such should be the pleasure of Congress, the necessary legislation upon the subject may be adopted.

In March last an arrangement was made, through Mr. Cushing, our minister in Madrid, with the Spanish government, for the payment by the latter to the United States of the sum of eighty thousand dollars in coin, for the purpose of the relief of the families or persons of the ship's company and certain passengers of the Virginius. This sum was to have been paid in three installments at two months each. It is due to the Spanish government that I should state that the payments were fully and spontaneously anticipated by that government, and that the whole amount was paid within but a few days more than two months from the date of the agreement, a copy of which is herewith transmitted. In pursuance of the terms of the adjustment I have directed the distribution of the amount among the parties entitled thereto, including the ship's company and such of the passengers as were American citizens. Payments are made accordingly, on the application by the parties entitled thereto.

The past year has furnished no evidence of an approaching termination of the ruinous conflict which has been raging for seven years in the neighboring island of Cuba. The same disregard of the laws of civilized warfare and of the just demands of humanity which has heretofore called forth expressions of condemnation from the nations of Christendom has continued to blacken the sad scene. Desolation, ruin, and pillage are pervading the rich fields of one of the most fertile and productive regions of the earth, and the incendiaries' torch, firing plantations and valuable factories and buildings, is the agent marking the alternate advance or retreat of contending parties.

The protracted continuance of this strife seriously affects the interests of all commercial nations, but those of the United States more than others, by reason of close proximity, its larger trade and intercourse with Cuba, and the frequent and intimate personal and social relations which have grown up between its citizens and those of the island. Moreover, the property of our citizens in Cuba is large, and is rendered insecure and depreciated in value and in capacity of production by the continuance of the strife and the unnatural mode of its conduct. The same is true, differing only in degree, with respect to the interests and people of other nations; and the absence of any reasonable assurance of a near termination of the conflict must, of necessity, soon compel the states thus suffering to consider what the interests of their own people and their duty toward themselves may demand.

I have hoped that Spain would be enabled to establish peace in her colony, to afford security to the property and the interests of our citizens, and allow legitimate scope to trade and commerce and the natural productions of the island. Because of this hope, and from an extreme reluctance to interfere in the most remote manner in the affairs of another and a friendly nation, especially of one whose sympathy and friendship in the struggling infancy of our own existence must ever be remembered with gratitude, I have patiently and anxiously waited the progress of events. Our own civil conflict is too recent for us not to consider the difficulties which surround a government distracted by a dynastic rebellion at home, at the same time that it has to cope with a separate insurrection in a distant colony. But whatever causes may have produced the situation which so grievously affects our interests, it exists, with all its attendant evils operating directly upon this country and its people. Thus far all the efforts of Spain have proved abortive, and time has marked no improvement in the situation. The armed bands of either side now occupy nearly the same ground as in the past, with the difference, from time to time, of more lives sacrificed, more property destroyed, and wider extents of fertile and productive fields and more and more of valuable property constantly wantonly sacrificed to the incendiaries' torch.

In contests of this nature, where a considerable body of people, who have attempted to free themselves of the control of the superior government, have reached such point in occupation of territory, in power, and in general organization as to constitute in fact a body politic, having a government in substance as well as in name, possessed of the elements of stability, and equipped with the machinery for the administration of internal policy and the execution of its laws, prepared and able to administer justice at home, as well as in its dealings with other powers, it is within the province of those other powers to recognize its existence as a new and independent nation. In such cases other nations simply deal with an actually existing condition of things, and recognize as one of the powers of the earth that body politic which, possessing

the necessary elements, has, in fact, become a new power. In a word, the creation of a new state is a fact.

To establish the condition of things essential to the recognition of this fact, there must be a people occupying a known territory, united under some known and defined form of government, acknowledged by those subject thereto, in which the functions of government are administered by usual methods, competent to mete out justice to citizens and strangers, to afford remedies for public and for private wrongs, and able to assume the correlative international obligations, and capable of performing the corresponding international duties resulting from its acquisition of the rights of sovereignty. A power should exist complete in its organization, ready to take and able to maintain its place among the nations of the earth.

While conscious that the insurrection in Cuba has shown a strength and endurance which make it at least doubtful whether it be in the power of Spain to subdue it, it seems unquestionable that no such civil organization exists which may be recognized as an independent government capable of performing its international obligations and entitled to be treated as one of the powers of the earth. A recognition under such circumstances would be inconsistent with the facts, and would compel the power granting it soon to support by force the government to which it had really given its only claim of existence. In my judgment, the United States should adhere to the policy and the principles which have heretofore been its sure and safe guides in like contests between revolted colonies and their mother country, and, acting only upon the clearest evidence, should avoid any possibility of suspicion or of imputation.

A recognition of the independence of Cuba being, in my opinion, impracticable and indefensible, the question which next presents itself is that of the recognition of belligerent rights in the parties to the contest.

In a former message to Congress I had occasion to consider this question, and reached the conclusion that the conflict in Cuba, dreadful and devastating as were its incidents, did not rise to the fearful dignity of war. Regarding it now, after this lapse of time, I am unable to see that any notable success, or any marked or real advance on the part of the insurgents, has essentially changed the character of the contest. It has acquired greater age, but not greater or more formidable proportions. It is possible that the acts of foreign powers, and even acts of Spain herself, of this very nature, might be pointed to in defense of such recognition. But now, as in its past history, the United States should carefully avoid the false lights which might lead it into the mazes of doubtful law and of questionable propriety, and adhere rigidly and sternly to the rule, which has been its guide, of doing only that which is right and honest and of good report. The question of according or of withholding rights of belligerency must be judged, in every case, in view of the particular attending facts. Unless justified by

necessity, it is always, and justly, regarded as an unfriendly act, and a gratuitous demonstration of moral support to the rebellion. It is necessary, and it is required, when the interests and rights of another government or of its people are so far affected by a pending civil conflict as to require a definition of its relations to the parties thereto. But this conflict must be one which will be recognized in the sense of international law as war. Belligerence, too, is a fact. The mere existence of contending armed bodies, and their occasional conflicts, do not constitute war in the sense referred to. Applying to the existing condition of affairs in Cuba the tests recognized by publicists and writers on international law, and which have been observed by nations of dignity, honesty, and power, when free from sensitive or selfish and unworthy motives, I fail to find in the insurrection the existence of such a substantial political organization, real, palpable, and manifest to the world, having the forms and capable of the ordinary functions of government toward its own people and to other states, with courts for the administration of justice, with a local habitation, possessing such organization of force, such material, such occupation of territory, as to take the contest out of the category of a mere rebellious insurrection, or occasional skirmishes, and place it on the terrible footing of war, to which a recognition of belligerency would aim to elevate it. The contest, moreover, is solely on land; the insurrection has not possessed itself of a single sea-port whence it may send forth its flag, nor has it any means of communication with foreign powers except through the military lines of its adversaries. No apprehension of any of those sudden and difficult complications which a war upon the ocean is apt to precipitate upon the vessels, both commercial and national, and upon the consular officers of other powers, calls for the definition of their relations to the parties to the contest. Considered as a question of expediency, I regard the accordance of belligerent rights still to be as unwise and premature, as I regard it to be, at present, indefensible as a measure of right. Such recognition entails upon the country according the rights which flow from it difficult and complicated duties, and requires the exaction from the contending parties of the strict observance of their rights and obligations. It confers the right of search upon the high seas by vessels of both parties; it would subject the carrying of arms and munitions of war, which now may be transported freely and without interruption in the vessels of the United States, to detention and to possible seizure; it would give rise to countless vexatious questions, would release the parent government from responsibility for acts done by the insurgents, and would invest Spain with the right to exercise the supervision recognized by our treaty of 1795 over our commerce on the high seas, a very large part of which, in its traffic between the Atlantic and the Gulf States, and between all of them and the States on the Pacific, passes through the waters which wash the shores of Cuba. The exercise of this super-

vision could scarce fail to lead, if not to abuses, certainly to collisions perilous to the peaceful relations of the two states. There can be little doubt to what result such supervision would before long draw this nation. It would be unworthy of the United States to inaugurate the possibilities of such result, by measures of questionable right or expediency, or by any indirection. Apart from any question of theoretical right, I am satisfied that, while the accordance of belligerent rights to the insurgents in Cuba might give them a hope and an inducement to protract the struggle, it would be but a delusive hope, and would not remove the evils which this Government and its people are experiencing, but would draw the United States into complications which it has waited long and already suffered much to avoid. The recognition of independence, or of belligerency, being thus, in my judgment, equally inadmissible, it remains to consider what course shall be adopted should the conflict not soon be brought to an end by acts of the parties themselves, and should the evils which result therefrom, affecting all nations, and particularly the United States, continue.

In such event, I am of opinion that other nations will be compelled to assume the responsibility which devolves upon them, and to seriously consider the only remaining measures possible, mediation and intervention. Owing, perhaps, to the large expanse of water separating the island from the peninsula, the want of harmony and of personal sympathy between the inhabitants of the colony and those sent thither to rule them, and want of adaptation of the ancient colonial system of Europe to the present times and to the ideas which the events of the past century have developed, the contending parties appear to have within themselves no depository of common confidence, to suggest wisdom when passion and excitement have their sway, and to assume the part of peace-maker. In this view, in the earlier days of the contest the good offices of the United States as a mediator were tendered in good faith, without any selfish purpose, in the interest of humanity and in sincere friendship for both parties, but were at the time declined by Spain, with the declaration, nevertheless, that at a future time they would be indispensable. No intimation has been received that in the opinion of Spain that time has been reached. And yet the strife continues with all its dread horrors and all its injuries to the interests of the United States and of other nations. Each party seems quite capable of working great injury and damage to the other, as well as to all the relations and interests dependent on the existence of peace in the island; but they seem incapable of reaching any adjustment, and both have thus far failed of achieving any success whereby one party shall possess and control the island to the exclusion of the other. Under these circumstances, the agency of others, either by mediation or by intervention, seems to be the only alternative which must, sooner or later, be invoked for the termination of the strife. At the same time, while thus impressed, I do not at this time recom-

mend the adoption of any measure of intervention. I shall be ready at all times, and as the equal friend of both parties, to respond to a suggestion that the good offices of the United States will be acceptable to aid in bringing about a peace honorable to both. It is due to Spain, so far as this Government is concerned, that the agency of a third power, to which I have adverted, shall be adopted only as a last expedient. Had it been the desire of the United States to interfere in the affairs of Cuba, repeated opportunities for so doing have been presented within the last few years; but we have remained passive, and have performed our whole duty and all international obligations to Spain with friendship, fairness, and fidelity, and with a spirit of patience and forbearance which negatives every possible suggestion of desire to interfere or to add to the difficulties with which she has been surrounded.

The government of Spain has recently submitted to our minister at Madrid certain proposals which it is hoped may be found to be the basis, if not the actual submission, of terms to meet the requirements of the particular griefs of which this Government has felt itself entitled to complain. These proposals have not yet reached me in their full text. On their arrival they will be taken into careful examination, and may, I hope, lead to a satisfactory adjustment of the questions to which they refer, and remove the possibility of future occurrences, such as have given rise to our just complaints.

It is understood also that renewed efforts are being made to introduce reforms in the internal administration of the island. Persuaded, however, that a proper regard for the interests of the United States and of its citizens entitle it to relief from the strain to which it has been subjected by the difficulties of the questions, and the wrongs and losses which arise from the contest in Cuba, and that the interests of humanity itself demand the cessation of the strife before the whole island shall be laid waste and larger sacrifices of life be made, I shall feel it my duty, should my hopes of a satisfactory adjustment and of the early restoration of peace and the removal of future causes of complaint be, unhappily, disappointed, to make a further communication to Congress at some period not far remote, and during the present session, recommending what may then seem to me to be necessary.

The Free Zone, so called, several years since established by the Mexican government in certain of the States of that republic adjacent to our frontier, remains in full operation. It has always been materially injurious to honest traffic, for it operates as an incentive to trades in Mexico to supply without customs-charges the wants of inhabitants on this side the line, and prevents the same wants from being supplied by merchants of the United States, thereby, to a considerable extent, defrauding our revenue and checking honest commercial enterprise.

Depredations by armed bands from Mexico on the people of Texas near the frontier continue. Though the main object of these incursions is robbery, they frequently result in the murder of unarmed and peace-

ably-disposed persons; and in some instances even the United States post-offices and mail-communications have been attacked. Renewed remonstrances upon this subject have been addressed to the Mexican government, but without much apparent effect. The military force of this Government disposable for service in that quarter is quite inadequate to effectually guard the line, even at those points where the incursions are usually made. An experiment of an armed vessel on the Rio Grande for that purpose is on trial, and it is hoped that, if not thwarted by the shallowness of the river and other natural obstacles, it may materially contribute to the protection of the herdsmen of Texas.

The proceedings of the joint commission under the convention between the United States and Mexico of the 4th of July, 1868, on the subject of claims, will soon be brought to a close. The result of those proceedings will then be communicated to Congress.

I am happy to announce that the government of Venezuela has, upon further consideration, practically abandoned its objection to pay to the United States that share of its revenue which some years since it allotted toward the extinguishment of the claims of foreigners generally. In thus reconsidering its determination that government has shown a just sense of self-respect which cannot fail to reflect credit upon it in the eyes of all disinterested persons elsewhere. It is to be regretted, however, that its payments on account of claims of citizens of the United States are still so meager in amount, and that the stipulations of the treaty in regard to the sums to be paid and the periods when those payments were to take place should have been so signally disregarded.

Since my last annual message the exchange has been made of the ratification of a treaty of commerce and navigation with Belgium, and of conventions with the Mexican Republic for the further extension of the joint commission respecting claims; with the Hawaiian Islands for commercial reciprocity, and with the Ottoman Empire for extradition; all of which have been duly proclaimed.

The Court of Commissioners of Alabama Claims has prosecuted its important duties very assiduously and very satisfactorily. It convened and was organized on the 22d day of July, 1874, and, by the terms of the act under which it was created, was to exist for one year from that date. The act provided, however, that should it be found impracticable to complete the work of the court before the expiration of the year, the President might, by proclamation, extend the time of its duration to a period not more than six months beyond the expiration of the one year.

Having received satisfactory evidence that it would be impracticable to complete the work within the time originally fixed, I issued a proclamation (a copy of which is presented herewith) extending the time of duration of the court for a period of six months from and after the 22d day of July last.

A report made through the clerk of the court (communicated herewith) shows the condition of the calendar on the 1st of November last, and the large amount of work which has been accomplished. Thirteen hundred and eighty-two claims have been presented, of which six hundred and eighty-two had been disposed of at the date of the report. I am informed that one hundred and seventy cases were decided during the month of November. Arguments are being made and decisions given in the remaining cases with all the dispatch consistent with the proper consideration of the questions submitted. Many of these claims are in behalf of mariners, or depend on the evidence of mariners, whose absence has delayed the taking or the return of the necessary evidence.

It is represented to me that it will be impracticable for the court to finally dispose of all the cases before it within the present limit of its duration. Justice to the parties claimant, who have been at large expense in preparing their claims and obtaining the evidence in their support, suggests a short extension, to enable the court to dispose of all of the claims which have been presented.

I recommend the legislation which may be deemed proper to enable the court to complete the work before it.

I recommend that some suitable provision be made, by the creation of a special court or by conferring the necessary jurisdiction upon some appropriate tribunal, for the consideration and determination of the claims of aliens against the Government of the United States which have arisen within some reasonable limitation of time, or which may hereafter arise, excluding all claims barred by treaty-provisions or otherwise. It has been found impossible to give proper consideration to these claims by the Executive Departments of the Government. Such a tribunal would afford an opportunity to aliens other than British subjects to present their claims on account of acts committed against their persons or property during the rebellion, as also to those subjects of Great Britain whose claims, having arisen subsequent to the 9th day of April, 1865, could not be presented to the late commission organized pursuant to the provisions of the treaty of Washington.

The electric telegraph has become an essential and indispensable agent in the transmission of business and social messages. Its operation on land, and within the limit of particular States, is necessarily under the control of the jurisdiction within which it operates. The lines on the high seas, however, are not subject to the particular control of any one government.

In 1869, a concession was granted by the French government to a company which proposed to lay a cable from the shores of France to the United States. At that time there was a telegraphic connection between the United States and the continent of Europe, (through the possessions of Great Britain at either end of the line,) under the control of an association which had, at large outlay of capital and at great risk, demonstrated the practicability of maintaining such means of communication. The cost

of correspondence by this agency was great, possibly not too large at the time for a proper remuneration for so hazardous and so costly an enterprise. It was, however, a heavy charge upon a means of communication which the progress in the social and commercial intercourse of the world found to be a necessity, and the obtaining of this French concession showed that other capital than that already invested was ready to enter into competition, with assurance of adequate return for their outlay. Impressed with the conviction that the interests, not only of the people of the United States, but of the world at large, demanded, or would demand, the multiplication of such means of communication between separated continents, I was desirous that the proposed connection should be made; but certain provisions of this concession were deemed by me to be objectionable, particularly one which gave for a long term of years the exclusive right of telegraphic communication by submarine cable between the shores of France and the United States. I could not concede that any power should claim the right to land a cable on the shores of the United States, and at the same time deny to the United States, or to its citizens or grantees, an equal right to land a cable on its shores. The right to control the conditions for the laying of a cable within the jurisdictional waters of the United States, to connect our shores with those of any foreign state, pertains exclusively to the Government of the United States, under such limitations and conditions as Congress may impose. In the absence of legislation by Congress, I was unwilling, on the one hand, to yield to a foreign state the right to say that its grantees might land on our shores, while it denied a similar right to our people to land on its shores; and, on the other hand, I was reluctant to deny to the great interests of the world and of civilization the facilities of such communication as were proposed. I therefore withheld any resistance to the landing of the cable on condition that the offensive monopoly feature of the concession be abandoned, and that the right of any cable which may be established by authority of this Government to land upon French territory, and to connect with French land-lines, and enjoy all the necessary facilities or privileges incident to the use thereof upon as favorable terms as any other company, be conceded. As the result thereof the company in question renounced the exclusive privilege, and the representative of France was informed that, understanding this relinquishment to be construed as granting the entire reciprocity and equal facilities which had been demanded, the opposition to the landing of the cable was withdrawn. The cable, under this French concession, was landed in the month of July, 1869, and has been an efficient and valuable agent of communication between this country and the other continent. It soon passed under the control, however, of those who had the management of the cable connecting Great Britain with this continent, and thus whatever benefit to the public might have ensued from competition between the two lines was lost, leaving only the greater facilities of an additional

line, and the additional security in case of accident to one of them. But these increased facilities and this additional security, together with the control of the combined capital of the two companies, gave also greater power to prevent the future construction of other lines, and to limit the control of telegraphic communication between the two continents to those possessing the lines already laid. Within a few months past a cable has been laid, known as the United States Direct Cable Company, connecting the United States directly with Great Britain. As soon as this cable was reported to be laid and in working order, the rates of the then existing consolidated companies were greatly reduced. Soon, however, a break was announced in this new cable, and immedi ately the rates of the other line, which had been reduced, were again raised. This cable being now repaired, the rates appear not to be reduced by either line from those formerly charged by the consolidated ompanies.

There is reason to believe that large amounts of capital, both at home and abroad, are ready to seek profitable investment in the advancement of this useful and most civilizing means of intercourse and correspondence. They await, however, the assurance of the means and conditions on which they may safely be made tributary to the general good.

As these cable telegraph lines connect separate states, there are questions as to their organization and control, which probably can be best, if not solely, settled by conventions between the respective states. In the absence, however, of international conventions on the subject, municipal legislation may secure many points which appear to me important, if not indispensable for the protection of the public against the extortions which may result from a monopoly of the right of operating cable-telegrams, or from a combination between several lines:

I. No line should be allowed to land on the shores of the United States under the concession from another power, which does not admit the right of any other line or lines, formed in the United States, to land and freely connect with and operate through its land-lines.

II. No line should be allowed to land on the shores of the United States which is not by treaty-stipulation with the government from whose shores it proceeds, or by prohibition in its charter, or otherwise to the satisfaction of this Government, prohibited from consolidating or amalgamating with any other cable telegraph line, or combining therewith for the purpose of regulating and maintaining the cost of telegraphing.

III. All lines should be bound to give precedence in the transmission of the official messages of the governments of the two countries between which it may be laid.

IV. A power should be reserved to the two governments, either conjointly or to each, as regards the messages dispatched from its shores, to fix a limit to the charges to be demanded for the transmission of messages.

I present this subject to the earnest consideration of Congress.

In the mean time, and unless Congress otherwise direct, I shall not oppose the landing of any telegraphic cable which complies with and assents to the points above enumerated, but will feel it my duty to prevent the landing of any which does not conform to the first and second points as stated, and which will not stipulate to concede to this Government the precedence in the transmission of its official messages, and will not enter into a satisfactory arrangement with regard to its charges.

Among the pressing and important subjects to which, in my opinion, the attention of Congress should be directed are those relating to fraudulent naturalization and expatriation.

The United States, with great liberality, offers its citizenship to all who in good faith comply with the requirements of law. These requirements are as simple and upon as favorable terms to the emigrant as the high privilege to which he is admitted can or should permit. I do not propose any additional requirements to those which the law now demands. But the very simplicity and the want of unnecessary formality in our law have made fraudulent naturalization not infrequent, to the discredit and injury of all honest citizens, whether native or naturalized. Cases of this character are continually being brought to the notice of the Government by our representatives abroad, and also those of persons resident in other countries, most frequently those who, if they have remained in this country long enough to entitle them to become naturalized, have generally not much overpassed that period, and have returned to the country of their origin, where they reside, avoiding all duties to the United States by their absence, and claiming to be exempt from all duties to the country of their nativity and of their residence by reason of their alleged naturalization. It is due to this Government itself and to the great mass of the naturalized citizens who entirely, both in name and in fact, become citizens of the United States, that the high privilege of citizenship of the United State should not be held by fraud or in derogation of the laws and of the good name of every honest citizen. On many occasions it has been brought to the knowledge of the Government that certificates of naturalization are held, and protection or interference claimed, by parties who admit that not only they were not within the United States at the time of the pretended naturalization, but that they have never resided in the United States; in others, the certificate and record of the court show on their face that the person claiming to be naturalized had not resided the required time in the United States; in others, it is admitted upon examination that the requirements of law have not been complied with; in some cases even, such certificates have been matter of purchase. These are not isolated cases, arising at rare intervals, but of common occurrence, and which are reported from all quarters of the globe. Such occurrences cannot and do not, fail to reflect upon the Government and injure all honest

citizens. Such a fraud being discovered, however, there is no practicable means within the control of the Government by which the record of naturalization can be vacated; and should the certificate be taken up, as it usually is, by the diplomatic and consular representatives of the government to whom it may have been presented, there is nothing to prevent the person claiming to have been naturalized from obtaining a new certificate from the court in place of that which has been taken from him.

The evil has become so great and of such frequent occurrence that I cannot too earnestly recommend that some effective measures be adopted to provide a proper remedy and means for the vacating of any record thus fraudulently made, and of punishing the guilty parties to the transaction.

In this connection I refer also to the question of expatriation and the election of nationality.

The United States was foremost in upholding the right of expatriation, and was principally instrumental in overthrowing the doctrine of perpetual allegiance. Congress has declared the right of expatriation to be a natural and inherent right of all people; but, while many other nations have enacted laws providing what formalities shall be necessary to work a change of allegiance, the United States has enacted no provisions of law, and has in no respect marked out how and when expatriation may be accomplished by its citizens. Instances are brought to the attention of the Government where citizens of the United States, either naturalized or native-born, have formally become citizens or subjects of foreign powers, but who, nevertheless, in the absence of any provisions of legislation on this question, when involved in difficulties, or when it seems to be their interest, claim to be citizens of the United States, and demand the intervention of a government which they have long since abandoned, and to which for years they have rendered no service, nor held themselves in any way amenable.

In other cases naturalized citizens, immediately after naturalization, have returned to their native country; have become engaged in business; have accepted offices or pursuits inconsistent with American citizenship, and evidence no intent to return to the United States until called upon to discharge some duty to the country where they are residing, when at once they assert their citizenship, and call upon the representatives of the Government to aid them in their unjust pretensions. It is but justice to all *bona-fide* citizens that no doubt should exist on such questions, and that Congress should determine by enactment of law how expatriation may be accomplished, and change of citizenship be established.

I also invite your attention to the necessity of regulating by law the status of American women who may marry foreigners, and of defining more fully that of children born in a foreign country of American parents who may reside abroad; and also of some further provision

regulating or giving legal effect to marriages of American citizens contracted in foreign countries. The correspondence submitted herewith shows a few of the constantly-occurring questions on these points presented to the consideration of the Government. There are few subjects to engage the attention of Congress on which more delicate relations or more important interests are dependent.

In the month of July last the building erected for the Department of State was taken possession of and occupied by that Department. I am happy to announce that the archives and valuable papers of the Government in the custody of that Department are now safely deposited and properly cared for.

The report of the Secretary of the Treasury shows the receipts from customs for the fiscal year ending June 30, 1874, to have been $163,103,833.69, and for the fiscal year ending June 30, 1875, to have been $157,167,722.35; a decrease for the last fiscal year of $5,936,111.34. Receipts from internal revenue for the year ending the 30th of June, 1874, were $102,409,784.90, and for the year ending June 30, 1875, $110,007,493.58; increase, $7,597,708.68.

The report also shows a complete history of the workings of the Department for the last year, and contains recommendations for reforms and for legislation which I concur in, but cannot comment on so fully as I should like to do if space would permit, but will confine myself to a few suggestions which I look upon as vital to the best interests of the whole people—coming within the purview of "Treasury"—I mean specie resumption. Too much stress cannot be laid upon this question, and I hope Congress may be induced, at the earliest day practicable, to insure the consummation of the act of the last Congress, at its last session, to bring about specie resumption "on and after the 1st of January, 1879," at furthest. It would be a great blessing if this could be consummated even at an earlier day.

Nothing seems to me more certain than that a full, healthy, and permanent reaction cannot take place in favor of the industries and financial welfare of the country until we return to a measure of values recognized throughout the civilized world. While we use a currency not equivalent to this standard, the world's recognized standard, specie, becomes a commodity like the products of the soil, the surplus seeking a market wherever there is a demand for it.

Under our present system we should want none, nor would we have any, were it not that customs-dues must be paid in coin, and because of the pledge to pay interest on the public debt in coin. The yield of precious metals would flow out for the purchase of foreign productions and leave the United States "hewers of wood and drawers of water" because of wiser legislation on the subject of finance by the nations with whom we have dealings. I am not prepared to say that I can suggest the best legislation to secure the end most heartily recommended. It will be a source of great gratification to me to be able to approve

any measure of Congress looking effectively toward securing "resumption."

Unlimited inflation would probably bring about specie payments more speedily than any legislation looking to the redemption of the legal-tenders in coin. But it would be at the expense of honor. The legal-tenders would have no value beyond settling present liabilities, or, properly speaking, repudiating them. They would buy nothing after debts were all settled.

There are a few measures which seem to me important in this connection, and which I commend to your earnest consideration:

A repeal of so much of the legal-tender act as makes these notes receivable for debts contracted after a date to be fixed in the act itself, say not later than the 1st of January, 1877. We should then have quotations at real values, not fictitious ones. Gold would no longer be at a premium, but currency at a discount. A healthy reaction would set in at once, and with it a desire to make the currency equal to what it purports to be. The merchants, manufacturers, and tradesmen of every calling could do business on a fair margin of profit, the money to be received having an unvarying value. Laborers and all classes who work for stipulated pay or salary would receive more for their income, because extra profits would no longer be charged by the capitalist to compensate for the risk of a downward fluctuation in the value of the currency.

Second, that the Secretary of the Treasury be authorized to redeem say not to exceed two million ($2,000,000) dollars monthly of legal-tender notes, by issuing in their stead a long bond, bearing interest at the rate of 3.65 per cent. per annum, of denominations ranging from $50 up to $1,000 each. This would in time reduce the legal-tender notes to a volume that could be kept afloat without demanding redemption in large sums suddenly.

Third, that additional power be given to the Secretary of the Treasury to accumulate gold for final redemption, either by increasing revenue, curtailing expenses, or both—it is preferable to do both; and I recommend that reduction of expenditures be made wherever it can be done without impairing Government obligations or crippling the due execution thereof. One measure for increasing the revenue—and the only one I think of—is the restoration of the duty on tea and coffee. These duties would add probably $18,000,000 to the present amount received from imports, and would in no way increase the prices paid for those articles by the consumers.

These articles are the products of countries collecting revenue from exports, and as we, the largest consumers, reduce the duties, they proportionately increase them. With this addition to the revenue, many duties now collected, and which give but an insignificant return for the cost of collection, might be remitted, and to the direct advantage of consumers at home.

I would mention those articles which enter into manufactures of all

sorts. All duty paid upon such articles goes directly to the cost of the article when manufactured here, and must be paid for by the consumers. These duties not only come from the consumers at home, but act as a protection to foreign manufacturers of the same completed articles in our own and distant markets.

I will suggest, or mention, another subject bearing upon the problem of "how to enable the Secretary of the Treasury to accumulate balances." It is to devise some better method of verifying claims against the Government than at present exists through the Court of Claims, especially those claims growing out of the late war. Nothing is more certain than that a very large percentage of the amounts passed and paid are either wholly fraudulent or are far in excess of the real losses sustained. The large amount of losses proven—on good testimony according to existing laws, by affidavits of fictitious or unscrupulous persons—to have been sustained on small farms and plantations are not only far beyond the possible yield of those places for any one year, but, as every one knows who has had experience in tilling the soil, and who has visited the scenes of these spoliations, are in many instances more than the individual claimants were ever worth, including their personal and real estate.

The report of the Attorney-General, which will be submitted to Congress at an early day, will contain a detailed history of awards made, and of claims pending of the class here referred to.

The report of the Secretary of War, accompanying this message, gives a detailed account of Army operations for the year just passed, expenses for maintenance, &c., with recommendations for legislation to which I respectfully invite your attention. To some of these I invite special attention:

First, the necessity of making $300,000 of the appropriation for the Subsistence Department available before the beginning of the next fiscal year. Without this provision troops at points distant from supply production must either go without food or existing laws must be violated. It is not attended with cost to the Treasury.

Second, his recommendation for the enactment of a system of annuities for the families of deceased officers by voluntary deductions from the monthly pay of officers. This again is not attended with burden upon the Treasury, and would for the future relieve much distress which every old Army officer has witnessed in the past—of officers dying suddenly or being killed, leaving families without even the means of reaching their friends, if fortunate enough to have friends to aid them.

Third, the repeal of the law abolishing mileage, and a return to the old system.

Fourth, the trial with torpedoes under the Corps of Engineers, and appropriation for the same. Should war ever occur between the United States and any maritime power, torpedoes will be among, if not the most effective and cheapest auxiliary for the defense of harbors, and

also in aggressive operations, that we can have. Hence it is advisable to learn by experiment their best construction and application as well as effect.

Fifth, a permanent organization for the Signal-Service Corps. This service has now become a necessity of peace as well as war, under the advancement made by the present able management.

Sixth, a renewal of the appropriation for compiling the official records of the war, &c.

The condition of our Navy at this time is a subject of satisfaction. It does not contain, it is true, any of the powerful cruising iron-clads which make so much of the maritime strength of some other nations, but neither our continental situation nor our foreign policy requires that we should have a large number of ships of this character, while this situation and the nature of our ports combine to make those of other nations little dangerous to us under any circumstances.

Our Navy does contain, however, a considerable number of iron-clads of the monitor class, which, though not properly cruisers, are powerful and effective for harbor defense and for operations near our own shores. Of these all the single-turreted ones, fifteen in number, have been substantially rebuilt, their rotten wooden beams replaced with iron, their hulls strengthened, and their engines and machinery thoroughly repaired, so that they are now in the most efficient condition and ready for sea as soon as they can be manned and put in commission.

The five double-turreted iron-clads belonging to our Navy, by far the most powerful of our ships for fighting purposes, are also in hand undergoing complete repairs, and could be ready for sea in periods varying from four to six months. With these completed according to the present design, and our two iron torpedo-boats now ready, our iron-clad fleet will be, for the purposes of defense at home, equal to any force that can readily be brought against it.

Of our wooden navy also, cruisers of various sizes, to the number of about forty, including those now in commission, are in the Atlantic, and could be ready for duty as fast as men could be enlisted for those not already in commission. Of these, one-third are in effect new ships, and though some of the remainder need considerable repairs to their boilers and machinery, they all are, or can readily be made, effective.

This constitutes a fleet of more than fifty war-ships, of which fifteen are iron-clad, now in hand on the Atlantic coast. The Navy has been brought to this condition by a judicious and practical application of what could be spared from the current appropriations of the last few years, and from that made to meet the possible emergency of two years ago. It has been done quietly, without proclamation or display, and though it has necessarily straitened the Department in its ordinary expenditure, and, as far as the iron-clads are concerned, has added nothing to the cruising force of the Navy, yet the result is not the less satisfactory, because it is to be found in a great increase of real rather

than apparent force. The expenses incurred in the maintenance of an effective naval force in all its branches are necessarily large, but such force is essential to our position, relations, and character, and affects seriously the weight of our principles and policy throughout the whole sphere of national responsibilities.

The estimates for the regular support of this branch of the service for the next year amount to a little less in the aggregate than those made for the current year; but some additional appropriations are asked for objects not included in the ordinary maintenance of the Navy, but believed to be of pressing importance at this time. It would, in my opinion, be wise at once to afford sufficient means for the immediate completion of the five double-turreted monitors now undergoing repairs, which must otherwise advance slowly, and only as money can be spared from current expenses. Supplemented by these, our Navy, armed with the destructive weapons of modern warfare, manned by our seamen, and in charge of our instructed officers, will present a force powerful for the home purposes of a responsible though peaceful nation.

The report of the Postmaster-General, herewith transmitted, gives a full history of the workings of the Department for the year just passed. It will be observed that the deficiency to be supplied from the General Treasury increased over the amount required for the preceding year. In a country so vast in area as the United States, with large portions sparsely settled, it must be expected that this important service will be more or less a burden upon the Treasury for many years to come. But there is no branch of the public service which interests the whole people more than that of cheap and rapid transmission of the mails to every inhabited part of our territory. Next to the free school, the post-office is the great educator of the people, and it may well receive the support of the General Government.

The subsidy of $150,000 per annum given to vessels of the United States for carrying the mails between New York and Rio de Janeiro having ceased on the 30th day of September last, we are without direct mail facilities with the South American states. This is greatly to be regretted, and I do not hesitate to recommend the authorization of a renewal of that contract, and also that the service may be increased from monthly to semi-monthly trips. The commercial advantages to be gained by a direct line of American steamers to the South American states will far outweigh the expense of the service.

By act of Congress approved March 3, 1875, almost all matter, whether properly mail-matter or not, may be sent any distance through the mails, in packages not exceeding four pounds in weight, for the sum of sixteen cents per pound. So far as the transmission of real mail-matter goes, this would seem entirely proper. But I suggest that the law be so amended as to exclude from the mails merchandise of all descriptions, and limit this transportation to articles enumerated, and which may be classed as mail-matter proper.

The discovery of gold in the Black Hills, a portion of the Sioux reservation, has had the effect to induce a large emigration of miners to that point. Thus far the effort to protect the treaty-rights of the Indians to that section has been successful, but the next year will certainly witness a large increase of such emigration. The negotiations for the relinquishment of the gold-fields having failed, it will be necessary for Congress to adopt some measures to relieve the embarrassment growing out of the causes named. The Secretary of the Interior suggests that the supplies now appropriated for the sustenance of that people, being no longer obligatory under the treaty of 1868, but simply a gratuity, may be issued or withheld at his discretion.

The condition of the Indian Territory, to which I have referred in several of my former annual messages, remains practically unchanged. The Secretary of the Interior has taken measures to obtain a full report of the condition of that Territory, and will make it the subject of a special report at an early day. It may then be necessary to make some further recommendation in regard to legislation for the government of that Territory.

The steady growth and increase of the business of the Patent-Office indicates, in some measure, the progress of the industrial activity of the country. The receipts of the Office are in excess of its expenditures, and the Office generally is in a prosperous and satisfactory condition.

The report of the General Land-Office shows that there were 2,459,601 acres less disposed of during this than during the last year. More than one-half of this decrease was in lands disposed of under the homestead and timber-culture laws. The cause of this decrease is supposed to be found in the grasshopper scourge and the droughts which prevailed so extensively in some of the frontier States and Territories during that time as to discourage and deter entries by actual settlers. The cash receipts were less, by $690,322.23 than during the preceding year.

The entire surveyed area of the public domain is 680,253,094 acres, of which 26,077,531 acres were surveyed during the past year, leaving 1,154,471,762 acres still unsurveyed.

The report of the Commissioner presents many interesting suggestions in regard to the management and disposition of the public domain and the modification of existing laws, the apparent importance of which should insure for them the careful consideration of Congress.

The number of pensioners still continues to decrease, the highest number having been reached during the year ending June 30, 1873. During the last year, 11,557 names were added to the rolls, and 12,977 were dropped therefrom, showing a net decrease of 1,420. But while the number of pensioners has decreased, the annual amount due on the pension-rolls has increased $44,733.13. This is caused by the greatly-increased average rate of pensions, which, by the liberal legislation of Congress, has increased from $90.26 in 1872 to $103.91 in 1875 to each invalid pensioner, an increase in the average rate of fifteen per cent. in

the three years. During the year ending June 30, 1875, there was paid on account of pensions, including the expenses of disbursement, $29,683,116, being $910,632 less than was paid the preceding year. This reduction in amount of expenditures was produced by the decrease in the amount of arrearages due on allowed claims, and on pensions, the rate of which was increased by the legislation of the preceding session of Congress. At the close of the last fiscal year there were on the pension-rolls 234,821 persons, of whom 210,363 were Army pensioners, 105,478 being invalids and 104,885 widows and dependent relatives; 3,420 were Navy pensioners, of whom 1,636 were invalids and 1,784 widows and dependent relatives; 21,038 were pensioners of the war of 1812, 15,875 of whom were survivors and 5,163 were widows.

It is estimated that $29,535,000 will be required for the payment of pensions for the next fiscal year, an amount $965,000 less than the estimate for the present year.

The geological explorations have been prosecuted with energy during the year, covering an area of about forty thousand square miles in the Territories of Colorado, Utah, and New Mexico, developing the agricultural andmineral resources, and furnishing interesting scientific and topographical details of that region.

The method for the treatment of the Indians, adopted at the beginning of my first term, has been steadily pursued, and with satisfactory and encouraging results. It has been productive of evident improvement in the condition of that race, and will be continued, with only such modifications as further experience may indicate to be necessary.

The board heretofore appointed to take charge of the articles and materials pertaining to the War, the Navy, the Treasury, the Interior, and the Post-Office Departments, and the Department of Agriculture, the Smithsonian Institution, and the Commission of Food-Fishes, to be contributed, under the legislation of last session, to the International Exhibition to be held at Philadelphia during the centennial year 1876, has been diligent in the discharge of the duties which have devolved upon it; and the preparations so far made with the means at command give assurance that the governmental contribution will be made one of the marked characteristics of the exhibition. The board has observed commendable economy in the matter of the erection of a building for the governmental exhibit, the expense of which it is estimated will not exceed, say, $80,000. This amount has been withdrawn, under the law, from the appropriations of five of the principal Departments, which leaves some of those Departments without sufficient means to render their respective practical exhibits complete and satisfactory. The exhibition being an international one, and the Government being a voluntary contributor, it is my opinion that its contribution should be of a character, in quality and extent, to sustain the dignity and credit of so distinguished a contributor. The advantages to the country of a creditable display are, in an international point of view, of the first importance,

while an indifferent or uncreditable participation by the Government would be humiliating to the patriotic feelings of our people themselves. I commend the estimates of the board for the necessary additional appropriations to the favorable consideration of Congress.

The powers of Europe, almost without exception, many of the South American states, and even the more distant eastern powers, have manifested their friendly sentiments toward the United States and the interest of the world in our progress by taking steps to join with us in celebrating the centennial of the nation, and I strongly recommend that a more national importance be given to this exhibition by such legislation and by such appropriation as will insure its success. Its value in bringing to our shores innumerable useful works of art and skill, the commingling of the citizens of foreign countries and our own, and the interchange of ideas and manufactures will far exceed any pecuniary outlay we may make.

I transmit herewith the report of the Commissioner of Agriculture, together with the reports of the commissioners, the board of audit, and the board of health of the District of Columbia, to all of which I invite your attention.

The Bureau of Agriculture has accomplished much in disseminating useful knowledge to the agriculturist, and also in introducing new and useful productions adapted to our soil and climate, and is worthy of the continued encouragement of the Government.

The report of the Commissioner of Education, which accompanies the report of the Secretary of the Interior, shows a gratifying progress in educational matters.

In nearly every annual message that I have had the honor of transmitting to Congress I have called attention to the anomalous, not to say scandalous, condition of affairs existing in the Territory of Utah, and have asked for definite legislation to correct it. That polygamy should exist in a free, enlightened, and Christian country, without the power to punish so flagrant a crime against decency and morality, seems preposterous. True, there is no law to sustain this unnatural vice, but what is needed is a law to punish it as a crime, and at the same time to fix the status of the innocent children, the offspring of this system, and of the possibly innocent plural wives. But, as an institution, polygamy should be banished from the land.

While this is being done, I invite the attention of Congress to another, though perhaps no less an evil, the importation of Chinese women, but few of whom are brought to our shores to pursue honorable or useful occupations.

Observations while visiting the Territories of Wyoming, Utah, and Colorado, during the past autumn, convinced me that existing laws regulating the disposition of public lands, timber, &c., and probably the mining laws themselves, are very defective, and should be carefully amended, and at an early day. In territory where cultivation of the soil can only be

followed by irrigation, and where irrigation is not practicable the lands can only be used as pasturage, and this only where stock can reach water, (to quench its thirst,) cannot be governed by the same laws as to entries as lands every acre of which is an independent estate by itself.

Land must be held in larger quantities to justify the expense of conducting water upon it to make it fruitful, or to justify utilizing it as pasturage. The timber in most of the Territories is principally confined to the mountain regions which are held for entry in small quantities only, and as mineral lands. The timber is the property of the United States, for the disposal of which there is now no adequate law. The settler must become a consumer of this timber whether he lives upon the plain or engages in working the mines. Hence every man becomes either a trespasser himself, or, knowingly, a patron of trespassers.

My opportunities for observation were not sufficient to justify me in recommending specific legislation on these subjects, but I do recommend that a joint committee of the two Houses of Congress—sufficiently large to be divided into subcommittees—be organized to visit all the mining States and Territories during the coming summer, and that the committee shall report to Congress at the next session such laws, or amendments to laws, as it may deem necessary to secure the best interests of the Government and the people of these Territories who are doing so much for their development.

I am sure the citizens occupying the territory described do not wish to be trespassers, nor will they be if legal ways are provided for them to become owners of these actual necessities of their position.

As this will be the last annual message which I shall have the honor of transmitting to Congress before my successor is chosen, I will repeat or recapitulate the questions which I deem of vital importance, which may be legislated upon and settled at this session:

First. That the States shall be required to afford the opportunity of a good common-school education to every child within their limits.

Second. No sectarian tenets shall ever be taught in any school supported in whole or in part by the State, nation, or by the proceeds of any tax levied upon any community. Make education compulsory, so far as to deprive all persons who cannot read and write from becoming voters after the year 1890, disfranchising none, however, on grounds of illiteracy who may be voters at the time this amendment takes effect.

Third. Declare church and state forever separate and distinct, but each free within their proper spheres; and that all church-property shall bear its own proportion of taxation.

Fourth. Drive out licensed immorality, such as polygamy and the importation of women for illegitimate purposes. To recur again to the centennial year, it would seem as though now, as we are about to begin the second century of our national existence, would be a most fitting time for these reforms.

Fifth. Enact such laws as will insure a speedy return to a sound currency, such as will command the respect of the world.

Believing that these views will commend themselves to the great majority of the right-thinking and patriotic citizens of the United States, I submit the rest to Congress.

U. S. GRANT.

EXECUTIVE MANSION,
December 7, 1875.

CONVENTION BETWEEN THE UNITED STATES OF AMERICA AND HIS MAJESTY THE KING OF THE HAWAIIAN ISLANDS.

COMMERCIAL RECIPROCITY.

Concluded January 30, 1875; *ratification advised by Senate March* 18, 1875; *ratified by President May* 31, 1875; *ratified by King April* 17, 1875; *ratifications exchanged at Washington, June* 3, 1875; *proclaimed June* 3, 1875.

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA.

A proclamation.

Whereas a Convention between the United States of America and His Majesty the King of the Hawaiian Islands, on the subject of Commercial Reciprocity, was concluded and signed by their respective Plenipotentiaries, at the city of Washington, on the thirtieth day of January, one thousand eight hundred and seventy-five, which convention, as amended by the contracting parties, is word for word as follows:

The United States of America and His Majesty the King of the Hawaiian Islands, equally animated by the desire to strengthen and perpetuate the friendly relations which have heretofore uniformly existed between them, and to consolidate their commercial intercourse, have resolved to enter into a Convention for Commercial Reciprocity. For this purpose, the President of the United States has conferred full powers on Hamilton Fish, Secretary of State, and His Majesty the King of the Hawaiian Islands has conferred like powers on Honorable Elisha H. Allen, Chief Justice of the Supreme Court, Chancellor of the Kingdom, Member of the Privy Council of State, His Majesty's Envoy Extraordinary and Minister Plenipotentiary to the United States of America, and Honorable Henry A. P. Carter, Member of the Privy Council of State, His Majesty's Special Commissioner to the United States of America.

And the said Plenipotentiaries, after having exchanged their full powers, which were found to be in due form, have agreed to the following articles:

ARTICLE I.

For and in consideration of the rights and privileges granted by His Majesty the King of the Hawaiian Islands in the next succeeding article of this convention, and as an equivalent therefor, the United States of America hereby agree to admit all the articles named in the following schedule, the same being the growth and manufacture or produce of the Hawaiian Islands, into all the ports of the United States free of duty.

SHEDULE.

Arrow-root; castor oil; bananas, nuts, vegetables, dried and undried, preserved and unpreserved; hides and skins undressed; rice; pulu; seeds, plants, shrubs, or trees; muscovado, brown, and all other unrefined sugar, meaning hereby the grades of sugar heretofore commonly imported from the Hawaiian Islands and now known in the markets of San Francisco and Portland as "Sandwich Island sugar;" syrups of sugar-cane, melado, and molasses; tallow.

ARTICLE II.

For and in consideration of the rights and privileges granted by the United States of America in the preceding article of this convention, and as an equivalent therefor, His Majesty the King of the Hawaiian Islands hereby agrees to admit all the articles named in the following schedule, the same being the growth, manufacture, or produce of the United States of America, into all the ports of the Hawaiian Islands free of duty.

SCHEDULE.

Agricultural implements; animals; beef, bacon, pork, ham, and all fresh, smoked, or preserved meats; boots and shoes; grain, flour, meal, and bran, bread and breadstuffs, of all kinds; bricks, lime, and cement; butter, cheese, lard, tallow; bullion; coal; cordage, naval stores, including tar, pitch, resin, turpentine raw and rectified; copper and composition sheathing; nails and bolts; cotton and manufactures of cotton bleached and unbleached, and whether or not colored, stained, painted, or printed; eggs; fish and oysters, and all other creatures living in the water, and the products thereof; fruits, nuts, and vegetables, green, dried or undried, preserved or unpreserved; hardware; hides, furs, skins and pelts, dressed or undressed; hoop-iron, and rivets, nails, spikes and bolts, tacks, brads or sprigs; ice; iron and steel and manufactures thereof; leather; lumber and timber of all kinds, round, hewed, sawed, and unmanufactured, in whole or in part; doors, sashes, and blinds; machinery of all kinds, engines and parts thereof; oats and hay; paper, stationery, and books, and all manufactures of paper or of paper and wood; petroleum and all oils for lubricating or illuminating purposes; plants, shrubs, trees, and seeds; rice; sugar, refined or unrefined; salt;

soap; shooks, staves, and headings; wool and manufactures of wool, other than ready-made clothing; wagons and carts for the purposes of agriculture or of drayage; wood and manufactures of wood, or of wood and metal except furniture either upholstered or carved and carriages; textile manufactures, made of a combination of wool, cotton, silk, or linen, or of any two or more of them other than when ready-made clothing; harness and all manufactures of leather; starch; and tobacco, whether in leaf or manufactured.

ARTICLE III.

The evidence that articles proposed to be admitted into the ports of the United States of America, or the ports of the Hawaiian Islands, free of duty, under the first and second articles of this convention, are the growth, manufacture, or produce of the United States of America or of the Hawaiian Islands, respectively, shall be established under such rules and regulations and conditions for the protection of the revenue as the two Governments may from time to time respectively prescribe.

ARTICLE IV.

No export duty or charges shall be imposed in the Hawaiian Islands, or in the United States, upon any of the articles proposed to be admitted into the ports of the United States or the ports of the Hawaiian Islands free of duty under the first and second articles of this convention. It is agreed, on the part of His Hawaiian Majesty, that so long as this treaty shall remain in force, he will not lease or otherwise dispose of or create any lien upon any port, harbor, or other territory in his dominions, or grant any special privilege or rights of use therein, to any other power, state or government, nor make any treaty by which any other nation shall obtain the same privileges, relative to the admission of any articles free of duty, hereby secured to the United States.

ARTICLE V.

The present convention shall take effect as soon as it shall have been approved and proclaimed by His Majesty the King of the Hawaiian Islands, and shall have been ratified and duly proclaimed on the part of the Government of the United States, but not until a law to carry it into operation shall have been passed by the Congress of the United States of America. Such assent having been given, and the ratifications of the convention having been exchanged as provided in article VI, the convention shall remain in force for seven years from the date at which it may come into operation; and further, until the expiration of twelve months after either of the high contracting parties shall give notice to the other of its wish to terminate the same; each of the high contracting parties being at liberty to give such notice to the other at the end of the said term of seven years, or at any time thereafter.

ARTICLE VI.

The present convention shall be duly ratified, and the ratifications exchanged at Washington city, within eighteen months from the date hereof, or earlier if possible.

In faith whereof the respective Plenipotentiaries of the high contracting parties have signed this present convention, and have affixed thereto their respective seals.

Done in duplicate, at Washington, the thirtieth day of January, in the year of our Lord one thousand eight hundred and seventy-five.

[SEAL.] HAMILTON FISH.
[SEAL.] ELISHA H. ALLEN.
[SEAL.] HENRY A. P. CARTER.

And whereas the said convention, as amended, has been duly ratified on both parts, and the respective ratifications were exchanged in this city on this day:

Now, therefore, be it known that I, ULYSSES S. GRANT, President of the United States of America, have caused the said convention to be made public, to the end that the same, and every clause and article thereof, may be observed and fulfilled with good faith by the United States and the citizens thereof.

In witness whereof I have hereunto set my hand, and caused the seal of the United States to be affixed.

Done at the city of Washington this third day of June, in the year of our Lord one thousand eight hundred and seventy-five, [SEAL.] and of the Independence of the United States the ninety-ninth.

U. S. GRANT.

By the President:
HAMILTON FISH,
Secretary of State.

TO THE PRESIDENT:

The Secretary of State has the honor to transmit herewith a report concerning the business of the Court of Commissioners of Alabama Claims, made through its clerk.

In this connection he has the honor to call your attention to the statement contained therein that, in the opinion of the court, it will be impossible to complete the work before it within the time allowed by existing provisions of law therefor.

HAMILTON FISH.

DEPARTMENT OF STATE,
Washington, November 15, 1875.

COURT OF COMMISSIONERS OF ALABAMA CLAIMS,
1514 H STREET, NORTHWEST,
Washington, D. C., November 1, 1875.

SIR: By order of the Court of Commissioners of Alabama Claims, I have the honor to communicate to you the following statement of the business of that court.

In accordance with the act approved June 23, 1874, and entitled "An act for the creation of a court for the adjudication and disposition of certain moneys received into the Treasury under an award made by the tribunal of arbitration constituted by virtue of the first article of the treaty concluded at Washington the eighth of May, anno Domini eighteen hundred and seventy-one, between the United States of America and the Queen of Great Britain," the judges met and organized the said court at Washington, on the 22d day of July, 1874, and have since that time held all their sittings in that city. On the 24th of July they made certain needful rules and regulations regulating the form and mode of procedure before them, and for carrying into full and complete effect the provisions of the act, (as provided in section 3 thereof,) which rules and regulations, together with a notice of their next session, were duly published.

The court then adjourned to Thursday, October 1, so that claimants might file their claims and prepare for trial, expecting that on the date of their next convening there would be such progress made by the claimants and their attorneys, in the preparation of their petitions and testimony, that the court would find a bar ready and anxious to proceed with a large number of cases. But when the court again met but few were ready for trial, and a very small number of claims had been filed.

From the table which I give below, you will see that the claims were filed very slowly at first, and it was not until the month of October that they began to come in with any rapidity, while 312 more petitions were filed in January alone than in the previous five months together.

The court remained very constantly in session during the winter, considering amendments to their rules, hearing extended arguments on points of law arising on demurrers, and applicable to a large number of claims, and deciding all claims presented to them for final hearing.

There was great delay, however, in the preparation of cases, and, in order to hasten the business of the court the following order was made on the 26th day of January, copies of which were forwarded by the clerk to all the attorneys practicing before the court, and through the press and otherwise it was brought to the knowledge of the public:

The time allowed for the filing of claims in this court expired on the 22d day of the present month of January. The whole number filed is 1,382. Before the expiration of this time it would have been useless to strike cases from the record, for the claimants could have filed new petitions. Justice to all parties now requires that the cases yet unheard should be disposed of with the least practicable delay.

The clerk is, therefore, directed to enter upon the trial-docket, in their numerical order, all claims in which no decision has been rendered. This docket will be called three times, but a greater number than fifty cases will not be called in one day. At each calling of the docket, parties who have not been previously heard will have an opportunity to submit their proofs and arguments. On the third calling of the docket, every claim shall be disposed of by final judgment.

The calendar was regularly called in accordance with this order, the court announcing constantly that, after disposing of the cases set for the day, any other cases ready for hearing might be submitted.

Comparatively few claims were presented for final hearing, and the court, after deciding every case before it, took a short recess, after directing the clerk to publish the following order and to forward a copy of it to the counsel of the respective claimants, which was done:

The court having finished the first calling of the trial-docket, and having entered judgment in every case presented for final hearing, is adjourned until the 28th day of April, 1875, at which time the second calling of the trial-docket will be commenced, and claimants are hereby notified to be ready at that time with their proofs. No case will be passed on the second calling of the docket without sufficient reason assigned, but a greater number than fifty cases will not be called in one day.

The court met pursuant to adjournment, and found that at last attorneys were ready to proceed to trial with a considerable number of cases, and since that date its time has been fully occupied; 643 cases having been argued and submitted since April 28. About 140 of these cases were dismissed by the court for want of jurisdiction; while a large proportion of those allowed were small in amount and presented few points for discussion.

This is not the case with the claims yet to be submitted, which involve larger sums and will require more extended argument.

The court directs me in this connection to communicate to you their high appreciation of the assistance rendered them in their labors by Mr. Creswell, the counsel on behalf of the United States. Allowing no point material to the Government to escape him, he has nevertheless performed his duties with the utmost fairness, and without captious criticism he has used every endeavor to facilitate the quick disposal of cases

and has neglected no opportunity to accommodate counsel with a speedy trial. With a large number of cases to investigate and master, involving, not only many various questions of fact, but also intricate points of law, with a learned bar arrayed against him, thoroughly conversant with their cases and all the points likely to arise in them, it will easily be seen that his task was one of no small magnitude. He has performed it in a most satisfactory and able manner.

The great delay to the business of the court caused by the length of time occupied by the claimants and their counsel in the preparation of cases was, under the peculiar circumstances governing the presentation of claims of this character, somewhat to be expected.

The court met and organized in the summer, when the attorneys were generally absent on vacation tours, and although every effort was made by the clerk through the newspapers and in other ways to bring the rules and form of procedure of the court to the notice of the claimants and their counsel, it was not until the latter part of September that they responded to any great extent; and although it appears that from that time every exertion was made in the preparation of cases, it has been impossible to present many for trial until a comparatively recent period.

Many of the claims are for losses sustained by mariners who are now absent at sea, and in other cases, where the claimants themselves are in this country, the testimony of captains, mates, or sailors, now abroad, has been necessary to substantiate essential points in the evidence necessary to support the claim.

Attorneys have had great trouble in discovering the whereabouts of many of these clients and witnesses, and commissions for the taking of testimony have been sent from this court to almost all parts of the world; in some cases the commission has followed the witness from port to port during a long voyage, arriving at each place just after his departure, until at last it has reached him thousands of miles from the place to which it was first forwarded.

In some cases the witness has not yet been found, and it is probable that many claims admissible under the act have never been presented, and some now on file will not be submitted for trial owing to the absence on whaling or other long voyages of the claimants or important witnesses.

The time which has elapsed since these claims first arose has also greatly increased the labors of counsel. Many of the claimants and witnesses have died leaving their affairs in disorder; many papers have been lost, and many important witnesses have disappeared.

Again, a large number of claims were in the hands of comparatively few attorneys, who were constantly and exclusively occupied, during the six months prescribed for the purpose, in filing petitions, and who, until after the 22d of January last, (when the six months expired within which the act required that all claims must be filed,) had no time for the preparation of testimony; while the other attorneys holding few cases, and those comparatively small in amount, did not feel

at liberty to proceed immediately to trial until the principles upon which the claims were to be adjudicated were more definitely settled, and counsel having more extensive interests at stake and a more intimate knowledge of the points which would probably arise should have an opportunity to present their views to the court.

A large part of the time, however, during which few cases were presented for trial, was occupied by able and extensive argument of counsel, for the forms and mode of procedure of the court being new, and the principles of law which were to govern them in the settlement of claims and the interpretation of the act not being fixed, the first work of the counsel was to learn, as far as possible, what the practice of the court was to be, and what the principles were which should govern them in the preparation and presentation of their cases. For this purpose the counsel on behalf of the United States filed demurrers to many of the points of law advanced in the petitions, and much time was occupied in argument on these demurrers, the decision of which greatly facilitated the disposal of claims when finally submitted for trial.

By the terms of the act of Congress under which the court was created, its duration, unless prolonged by proclamation of the President, was limited to one year from the date of its organization. Six months of that time were given within which petitions might be filed by the claimants, and a large part of the petitions, as has been shown, were filed during the latter part of this period. Although the claimants seemed to be diligent in preparing their cases, but few, comparatively, were ready for trial until late in the spring of 1875, so that out of the 1,382 claims on file, a large number remained undecided in June last, as heretofore mentioned. On the 2d of June, 1875, therefore, the President, by proclamation, extended the duration of the court for six months from the 22d of July, 1875, (as provided by law.) The powers of the court will therefore cease on the 22d day of January next.

The total number of cases in which judgment is now entered is 682, and the total amount allowed is $2,810,088.84, exclusive of interest; petitions have been dismissed or judgment has been entered in favor of the United States in 147 cases, involving $3,274,418.35, exclusive of interest; and 700 cases, involving $5,296,883.58, exclusive of interest, remain to be acted upon at the date of this communication, of which 12 have been argued, and are now under consideration.

Of the total number of cases submitted, 640 have been decided since the court met, on the 28th day of April last.

The court, therefore, direct me to inform you that it is evident to them that they will not be able to complete their work within the time provided by the eighth section of the said act.

I have the honor to be, sir, your obedient servant,

JOHN DAVIS,
Clerk.

Hon. HAMILTON FISH,
Secretary of State.

Character and amount of judgments.

Character of loss.	Amount claimed.	Amount awarded.	Amount of interest to date of award.	Total amount awarded.
Merchandise	$941,274 79	$746,231 11	$353,907 29	$1,100,138 40
Vessel, freight, &c	2,503,314 19	1,833,388 78	833,622 57	2,667,011 35
Personal effects, &c	377,902 79	225,598 40	102,178 62	327,777 02
Insurers	5,984 74	4,870 55	2,352 19	7,222 74
Petitions dismissed and judgment for the United States	3,274,418 35			
Total	7,102,954 86	2,810,088 84	1,292,060 67	4,102,149 51

Date.	Petitions filed.	Cases argued and submitted.	Petitions dismissed and judgments for United States.	Judgments for claimants.	Total judgments for each month.
July, 1874	3				
August, 1874	5				
September, 1874	64				
October, 1874	119				
November, 1874	160				
December, 1874	264	3		3	3
January, 1875	767	1		1	1
February, 1875		24	1	18	19
March, 1875		17	1	18	19
April, 1875		26	3	5	8
May, 1875		127	3	84	87
June, 1875		285	137	199	336
September, 1875				1	1
October, 1875		205	2	206	208
Total	1,382	688	147	535	682

Number of cases yet undisposed of 700, of which 12 are now before the court.

JOHN DAVIS, *Clerk.*

COURT OF COMMISSIONERS OF ALABAMA CLAIMS,
Washington, November 1, 1875.

REPORT

OF

THE SECRETARY OF THE TREASURY.

TREASURY DEPARTMENT,
Washington, D. C., December 6, 1875.

SIR: In obedience to law, the Secretary of the Treasury respectfully submits to Congress the following report on the subject of finance, embracing estimates of receipts and expenditures, and plans of revenue:

RECEIPTS AND EXPENDITURES FOR THE FISCAL YEAR ENDING JUNE 30, 1875.

Receipts.

The moneys received and covered into the treasury by warrants during the fiscal year ending June 30, 1875, were as follows:

From customs	$157,167,722 35
From internal revenue	110,007,493 58
From sales of public lands	1,413,640 17
From tax on circulation and deposits of national banks	7,268,379 16
From repayment of interest by Pacific Railway Companies	882,274 91
From customs' fines, penalties, &c	228,870 23
From labor, drayage, storage, &c	1,112,500 53
From sales of Indian-trust lands	243,671 66
From fees—consular, letters-patent, and land	1,818,884 29
From proceeds of sales of government property	1,278,693 87
From marine-hospital tax	338,893 78
From steamboat fees	260,944 75
From profits on coinage, &c	452,657 40
From tax on seal-skins	317,494 75
From miscellaneous sources	1,228,649 98
Total ordinary receipts	284,020,771 41
Premium on sales of coin	3,979,279 69
Total net receipts, exclusive of loans	288,000,051 10
Balance in treasury June 30, 1874, including deposits of coin and United States notes represented by certificates outstanding	150,731,694 63
Total available cash	438,731,745 73

Expenditures.

The net expenditures by warrants during the same period were—

For civil expenses	$17,346,929 53
For foreign intercourse	1,265,418 23
For Indians	8,384,656 82
For pensions	29,456,216 22
For military establishment, including fortifications, river and harbor improvements, and arsenals	41,120,645 98
For naval establishment, including vessels, and machinery and improvements at navy yards	21,497,626 27
For miscellaneous civil, including public buildings, light-houses, and collecting the revenues	50,528,536 22
For interest on the public debt, including interest on bonds issued to Pacific Railway Companies	103,093,544 57
For payment of award to British claimants	1,929,819 00
Total net expenditures	274,623,392 84
Redemption of the public debt	19,405,936 48
Total net disbursements	294,029,329 32
Balance in treasury June 30, 1875	144,702,416 41
Total	438,731,745 73

This statement shows that the net revenues for the fiscal year were	$288,000,051 10
And the ordinary expenses, (including the award to British claimants, $1,929,819)	274,623,392 84
Leaving a surplus revenue, exclusive of provision for the sinking fund	13,376,658 26

By reference to the last annual report, page VI, it will be observed that the estimate then made was that the revenues for this fiscal year would reach the sum of $284,318,285 99, and that the expenditures would amount to $275,315,489 42.

RECEIPTS AND EXPENDITURES FOR THE FISCAL YEAR ENDING JUNE 30, 1876.

The receipts during the first quarter were—

From customs	$44,233,626 25
From internal revenue	28,199,723 50
From sales of public lands	308,641 73
From tax on circulation, &c., of national banks	3,626,033 88
From repayment of interest by Pacific railways	262,212 87
From customs' fines, &c	28,521 75
From consular, patent, and other fees	510,427 19

From proceeds of sales of government property	$104,273 65
From miscellaneous sources	1,722,408 90
Net ordinary receipts	78,995,869 67
Premiums on sales of coin	2,160,275 47
Total net ordinary receipts	81,156,145 14
Balance in treasury June 30, 1875	144,702,416 41
Total available	225,858,561 55

The expenditures during the same period were—

For civil and miscellaneous expenses, including public buildings, light-houses, and collecting the revenues	$18,673,072 68
For Indians	2,660,474 38
For pensions	8,845,927 64
For military establishment, including fortifications, river and harbor improvements, and arsenals	11,391,476 26
For naval establishment, including vessels and machinery and improvements at navy yards	7,959,037 99
For interest on the public debt, including Pacific Railway bonds	34,517,554 81
Total ordinary expenditures	84,047,543 76
Redemption of the public debt	6,838,999 66
Balance in treasury September 30, 1875	134,972,018 13
Total	225,858,561 55

For the remaining three quarters it is estimated that the receipts will be—

From customs	$112,000,000 00
From internal revenue	92,000,000 00
From sales of public lands	1,100,000 00
From tax on national banks	3,650,000 00
From reimbursement by Pacific railways	350,000 00
From customs' fines, penalties, and forfeitures	100,000 00
From consular, patent, and other fees	1,300,000 00
From proceeds of sales of public property	600,000 00
From miscellaneous sources, including premium on coin	5,200,000 00
Total net receipts	216,300,000 00

For the same period it is estimated that the expenditures will be—

For civil miscellaneous, including public buildings	$49,500,000 00
For Indians	4,400,000 00
For pensions	21,000,000 00
For military establishment	30,000,000 00
For naval establishment	12,000,000 00
For interest on the public debt	67,500,000 00
Total ordinary expenditures	184,400,000 00

From the foregoing statement of actual receipts and expenditures for the first quarter of the current fiscal year, and the estimates of the same for the remaining three quarters, based upon appropriations already made, and also on the assumption that Congress will not increase the expenditures by deficiency or other appropriations, it will be seen that, in the judgment of the Department, the revenues will reach the sum of $297,456,145 14, and that the ordinary expenditures will amount to $268,447,543 76. This exhibit gives a surplus revenue of $29,008,601 38. Under existing laws it is estimated that $32,293,692 32 will be required to be provided for the sinking fund for this year. If the statement, as here submitted, shall prove to be approximately correct, the revenues will fall short by the amount of $3,285,090 94 of providing for the appropriations made by Congress.

ESTIMATES FOR THE FISCAL YEAR ENDING JUNE 30, 1877.

It is estimated that the receipts for the fiscal year ending June 30, 1877, will be—

From customs	$165,000,000 00
From internal revenue	120,000,000 00
From sales of public lands	1,500,000 00
From tax on circulation of national banks	7,200,000 00
From reimbursement of interest by Pacific Railway Companies	500,000 00
From customs' fines, penalties, and forfeitures	100,000 00
From consular, letters-patent, and other fees	1,900,000 00
From proceeds of sales of government property	800,000 00
From miscellaneous sources	7,000,000 00
Total ordinary receipts	304,000,000 00

It is estimated that the ordinary expenditures for the same period will be—

For civil expenses	$17,500,000 00
For foreign intercourse	1,353,000 00
For Indians	7,000,000 00
For pensions	29,534,000 00
For military establishment, including fortifications, river and harbor improvements, and arsenals	40,000 000 00
For naval establishment, including vessels and machinery and improvements at navy yards	21,000,000 00
For civil miscellaneous, including public buildings, and light-houses, collecting revenues, mail steamship service, deficiency in postal revenues, public printing, &c	52,000,000 00
For interest on public debt	97,000,000 00
For interest on Pacific Railway bonds	3,878,000 00
Total estimated expenditures, exclusive of the sinking-fund account and principal of the public debt	269,265,000 00

It is expected that for this fiscal year the surplus revenues of the government will amount to $34,735,000. The estimated amount to be provided for the sinking fund is $34,063,377 40. There is reason to hope, therefore, that the income of the government for this year will amply provide for all its obligations, including the sinking fund.

The estimates received from the several Executive Departments are as follows:

Legislative establishment		$2,865,378 50
Executive establishment		15,717,045 40
Judicial establishment		3,403,450 00
Foreign intercourse		1,352,485 00
Military establishment		33,697,178 50
Naval establishment		20,871,666 40
Indian affairs		5,787,795 64
Pensions		29,533,500 00
Public works:		
Treasury Department	$6,152,846 86	
War Department	19,888,238 44	
Navy Department	1,725,000 00	
Interior Department	800,500 00	
Department of Agriculture	21,825 00	
Department of Justice	3,000 00	
		28,591,410 30
Postal service		9,281,602 19
Miscellaneous		13,881,185 79
Permanent appropriations, (including $34,063,377 40 for sinking fund)		146,629,910 76
Total		314,612,608 48

REDUCTION OF THE PUBLIC DEBT.

By the monthly statement of the public debt issued June 30, 1875, the reduction of the debt during the year was shown to be $14,399,514 84, viz:

Principal of the debt July 1, 1874		$2,251,690,468 43
Interest due and unpaid, and accrued interest to date,		38,939,087 47
Total debt		2,290,629,555 90
Cash in the treasury		147,541,314 74
Debt, less cash in the treasury		2,143,088,241 16
Principal of the debt July 1, 1875		$2,232,284,531 95
Interest due and unpaid, and accrued interest to date,		38,647,556 19
Total debt		2,270,932,088 14
Cash in the treasury		142,243,361 82
Debt, less cash in the treasury		2,128,688,726 32
Showing a reduction, as above stated, of		$14,399,514 84

It will be observed that the surplus revenues, exclusive of provision for the sinking fund, as shown in the statement of receipts and expenditures for the fiscal year, were $13,376,658 26, or $1,022,856 58 less than the amount of the reduction of the debt as shown by the monthly statement of the same.

The difference between these two statements arises from the difference of dates at which they are made up, as will be seen by a comparison of them as regards the cash in the treasury at the commencement and close of the fiscal year, and of the item of "interest due and unpaid, and accrued interest to date," which, in the monthly debt statement, is treated as a liability of the Government, precisely as is the principal of the debt, but which is not so considered in the statement of receipts and expenditures.

The cash in the treasury July 1, 1874, as shown by the monthly debt statement of that date, and which embraced only the moneys officially reported to the Department at the time of its issue, was.....	$147,541,314	74
The cash in the treasury July 1, 1874, as shown by the account of receipts and expenditures, (the books from which it is prepared usually being kept open for a period of forty-five days, so as to include at the date of closing the account all the revenues deposited at the different places of deposit throughout the country within the period covered by the same, and which are unascertained at the time of the issue of the monthly statement,) was.....	150,731,694	63
Showing a difference of.....	3,190,379	89
The cash in the treasury July 1, 1875, as shown by the monthly debt statement of that date, was....	$142,243,361	82
And as shown by the statement of the receipts and expenditures of same date.....	144,702,416	41
Showing a difference of.....	2,459,054	59
The difference in these two statements of cash reported to the Treasury, as appears by the monthly statement, and as ascertained by the statement of receipts and expenditures at the commencement and close of the fiscal year, it will be seen, is.....	$731,325	30
To which add the reduction in the item of "Interest due and unpaid, and accrued interest to date".....	291,531	28
Making the sum of.....	1,022,856	58

It will, therefore, be perceived that no difference exists in these two accounts, other than that which grows out of the manner of their preparation.

Frugality in administration is among the foremost and most important points of a sound financial policy. Faithful collection of the revenue and reduction of expenditures to the lowest point demanded by the necessities of government, constitute the first duty of those intrusted with making and administering the law. The obligation to adhere strictly to this duty has peculiar force while the public indebtedness is large and the industries of the country are suffering from financial depression. Rigid economy at such a time must lead to two important results; first, advancement of the credit of the government throughout the financial world, and hence ability to refund the debt at a lower rate of interest; second, and by no means least in importance, greater willingness on the part of the people to bear the burden of taxation, when they see that their government, like themselves, is reducing expenditures to the lowest practicable point, and applying the revenue received from them to its necessary and legitimate purposes. The general depression of business which followed the era of inflation and extravagance, through which we have just passed, has made it necessary that individuals, associations, and corporations should reduce their expenditures to the minimum; and, having done so, the taxpayers have a right to demand that the government shall do likewise. While the interest on the public debt, and all other national obligations, must be promptly met, there are many points at which it is believed that considerable reduction of appropriations can properly be made; and the Secretary invites critical examination of all the estimates submitted to Congress. Increase of public expenditures in time of great prosperity and extravagance is accomplished by an easy process; but a corresponding reduction when the reverse comes can be brought about only by the closest vigilance and most determined resistance to every appeal for appropriations not required by the existing necessities of government.

No appropriation of money should be made without reference to the probable amount of revenue to accrue within the year in excess of existing obligations and liabilities.

THE SINKING FUND.

The fifth section of the act of February 25, 1862, sets apart as a special fund all duties on imported goods, and directs the application thereof—

First. To the payment in coin of the interest on the bonds and notes of the United States.

Second. To the purchase or payment of one per centum of the entire

debt of the United States, to be made within each fiscal year after the first day of July, 1862, which is to be set apart as a sinking fund, and the interest of which shall, in like manner, be applied to the purchase or payment of the public debt, as the Secretary of the Treasury shall from time to time direct.

Third. The residue thereof to be paid into the treasury of the United States.

Section six of the act of July 14, 1870, directs that the bonds theretofore purchased and then held in the treasury in accordance with the provisions of the act aforesaid, and all other bonds which had been purchased by the Secretary of the Treasury with surplus funds in the treasury, and any bonds thereafter applied to said sinking fund, with all others thereafter redeemed or paid, shall be recorded, cancelled, and destroyed, and that the amount of the bonds of each class so cancelled and destroyed shall be deducted, respectively, from the amount of each class of the outstanding debt of the United States. The last-named act also provides that, in addition to other amounts to be applied to the redemption or payment of the public debt, an amount equal to the interest on all bonds belonging to the aforesaid sinking fund shall be applied, as the Secretary of the Treasury shall from time to time direct, to the payment of the public debt, as provided for in section five of the act first above named, and appropriates from the receipts for duties on imports the amount so to be applied.

These acts are regarded by the Secretary as imposing upon him the imperative duty to take care of the sinking fund, as therein directed, out of the coin received from duties on imports. This requirement is secondary only to the payment of interest on the public debt. It takes precedence of all other appropriations, as, by the very terms of the legislation, only the residue of receipts from customs, after deducting interest on the public debt and providing for the sinking fund, goes into the treasury.

The statute imposes upon the Secretary a duty to be performed annually, the requirement being that the purchase, or payment, for and on account of the sinking fund shall be made within each fiscal year.

During the past fiscal year it was not practicable to purchase the amount of United States bonds required for the sinking fund, for the reason that such bonds could not be bought at par, and the Secretary was forbidden by law to pay more. But the eleventh section of the act of March 3, 1875, authorizes the Secretary, for the purpose of obtaining bonds for the sinking fund, to give notice that he will redeem, in coin at par, any bonds of the United States, bearing interest at the

rate of six per centum, of the kind known as five-twenties; and further provides that interest on such bonds shall cease at three months from the date of notification. The amount required for the sinking fund for the fiscal year ending June 30, 1875, was $31,096,545. Of this amount $1,096,500 six per cent. five-twenty bonds were purchased at the rate of $99 87½ for each hundred dollars in bonds; and on the 11th day of March, 1875, a call was made for $30,000,000 of the same class of bonds. This call matured on the 11th day of June, 1875, which, being so near the end of the fiscal year, a part of the bonds named in the notice were not presented for redemption during that year. Of the amount so called only $24,073,900 were presented for payment before the 30th day of June. Therefore, the amount which appears upon the books of the treasury as actually applied to the sinking fund within the past fiscal year is $25,170,400.

For the current fiscal year it is estimated that $32,140,914 must be applied to the fund. To meet this requirement a call was made on the 1st day of September for $8,000,000 six per cent. five-twenty bonds, and on the 15th day of November a further call for $5,000,000 bonds of the same class. The balance necessary to complete the total amount for this year will be called from time to time in such manner as to cause the least disturbance of the market, and it is hoped that the whole amount will be presented for payment within the year.

REFUNDING THE NATIONAL DEBT.

Since the Secretary's last report to Congress the refunding of the national debt authorized by the acts of July 14, 1870, and January 20, 1871, has been continued. The contract which was entered into July 28, 1874, and which is fully set forth and explained in the last annual report, was renewed January 29, 1875, the contracting parties being Messrs. August Belmont & Co., of New York, on behalf of Messrs. N. M. Rothschild & Sons, of London, England; Messrs. Drexel, Morgan & Co., of New York, on behalf of Messrs. J. S. Morgan & Co., of London, England; and Messrs. J. & W. Seligman & Co., of New York, on behalf of Seligman Brothers, London, England. The conditions of the contract were slightly modified, the contracting parties being allowed one-half of one per cent. commission, and binding themselves to defray all expenses incurred in transporting five per cent. bonds to London, and six per cent. bonds, United States coin coupons, and gold coin, from London to Washington, besides the expenses of preparing the new bonds.

Under this agreement the contracting parties have subscribed for

$122,688,550, the balance of "New Fives" then remaining unnegotiated; and the Secretary now has the pleasure of announcing to Congress that the funding of the five hundred million of six per cent. bonds into those bearing five per cent. interest has been accomplished, thereby saving an annual interest to the government of five million dollars.

The success which has attended the refunding of $178,548,300 of the national debt during the last sixteen months, with the steady improvement of the national credit, induces the belief that the remainder of the six per cent. bonds can be refunded, within a reasonable time, in accordance with the provisions of the acts before mentioned. The attention of Congress is, however, called to the fact that, by the terms of the authorizing act, the bonds to be issued at the rate of four and one-half per cent. are redeemable at any time after the expiration of fifteen years from the date of their issue. Bonds most easily placed on the market, which are most sought for by investors, and considered in all respects the most valuable, are those having a long period to run. Taking into consideration the fact that but little inducement is offered in the amount allowed as commissions for placing the United States loans, compared with that paid by other governments, it is thought important to give these bonds all the elements of popularity that may be possible; and the Secretary, therefore, recommends that an amendment be made to the act of July 14, 1870, which shall extend the time of redemption of such bonds to thirty years from the date of their issue.

RESUMPTION OF SPECIE PAYMENT.

The depression of business and general contraction of values which followed the financial panic of 1873 have continued to a greater or less degree in all parts of the country. Similar financial convulsions have occurred in other countries, and their effects are now being felt to a degree as great, perhaps, as in this country. These disastrous disturbances have been brought about in our own country by overtrading, over-credit, and excessive enterprise of a speculative character, stimulated by too great abundance of promises to pay, existing in the form of currency not based upon, or convertible into, the only actual money of the world and of the Constitution, gold and silver. Other commercial countries which have suffered and are now suffering from financial depression, have felt the influence of like causes, while in some of them the temptation to carry prosperous times to excess has, as has often happened before, led to over-production, and that superfluity of trade and credit which must inevitably, sooner or later, be followed by a collapse, and a corresponding period of depression. Although there

are gratifying indications of increased activity in certain branches of business in the United States, it must be admitted that confidence has not yet been restored to the extent necessary to bring about a general revival, or to put the trade and industries of the country upon a basis of activity and permanent prosperity. Nor is it reasonable to expect that this will be done until there shall be a nearer approach to resumption of specie payment, and consequent improvement in the character of the currency. The constant disturbance of exchange and fluctuation of values, the uncertainties of business, the want of confidence between individuals, corporations, and communities, which all experience proves to be the inevitable result of the use of a medium of exchange possessing no intrinsic value, representing no considerable amount of labor in its production, and not convertible into that which is recognized as money throughout the commercial world, are considerations which should claim the attention of every thoughtful representative of the people. However rapid may be our increase in population, wealth, and material strength, we cannot take the rank as a commercial or business people to which we are entitled by superior natural advantages, and the productive energies of our population, or attract to us the surplus capital of the world, so long as we have fluctuating standards of value, and such uncertainty in our fiscal legislation as makes the assembling of Congress and our frequent elections occasions of anxiety and apprehension not only with the holders of our securities abroad, but with business men at home.

Great Britain has kept the value of her pound sterling substantially unvarying for two hundred years, and, in consequence of this steadiness, it has become the basis of the transactions, not only of British commerce and trade, but of all the world. In all civilized countries government negotiations with foreign money-lenders are made upon this basis; and, as a general rule, the only foreign bills current all over the world are those which are expressed in pounds sterling payable in London, which city thus becomes the great centre where a true measure of property and debts can be found; and hence, the commerce of the world revolves around it, and pays tribute to its commercial standard. With an unsteady and varying currency, having no fixed relation to the money of the world, but always much below its par value, we can never attain that commercial independence to which our great resources and active population entitle us.

Every branch of industry and all classes of people are alike interested in the restoration of a sound and stable circulating medium, the laborer and producer no less than the merchant, bondholder, and

banker. The present unequal and fluctuating currency oppresses and injures laborers and producers, who constitute a great majority of our people, far more than it affects injuriously dealers in money. The difference between gold and our paper currency is a margin upon which experienced money-dealers do business, and it is this that gives the opportunity for artificial combinations whereby values are increased or reduced at pleasure. The purchasing power of the currency is increased or diminished by the manipulations of large operators united for that purpose, and producers and laborers are often made to suffer, without effective power of resistance. Restoration of a sound and unvarying currency must bring better relative wages with more constant employment, because the value of labor, as of that which it produces, will be measured by a more certain standard; and, with the return of confidence, there must come activity, prosperity, larger markets, and greater demand, which, as both reason and experience prove, do not tend to lower wages, or make employment less certain.

The claim that the large issue of inconvertible paper currency has been beneficial to producers is, perhaps, sufficiently disproved by reference to the reports of sales of leading articles of produce, such as wheat, corn, and pork, before and since the issue of such currency. The most trustworthy statistics show that such articles were sold in New York during the five years from 1870 to 1874, inclusive, for about the same price that they brought in the five years from 1856 to 1860, inclusive.

On the other hand it is equally certain that the farmer has paid increased prices, during the period from 1870 to 1874, for articles imported for consumption, upon all of which the difference between gold and currency must be paid by the consumer, who pays in the latter. Thus the producer of domestic articles is constantly subjected to loss in exchanging his products for such articles as coffee, tea, sugars, and other imported goods, which enter into daily consumption. In this connection it should be borne in mind that a greater volume of currency is required for the transaction of business when it consists of inconvertible paper, which does not circulate abroad, than when the currency in general use is gold, which flows through every artery of commerce. The statistics of our foreign trade illustrate this proposition. For every imported article the consumer must pay to the importer, besides the cost in gold, increased by his percentage of profit, as much more as the difference between gold and the currency with which payment is made. This difference, commonly called the premium on gold, increases by many millions the total amount which would otherwise be required to complete all such transactions.

The proper office of currency, whether it be gold or paper, is to serve as a medium of exchange for the adjustment of transactions between buyers and sellers. When it is sound and stable, receivable in all parts of the commercial world, the amount which actually passes from hand to hand in business transactions is far below the volume of business. A small per cent. thereof is adjusted by the actual handling of money. Exchanges are, for the most part, made by transfers of credits through banks and other agencies. Wherever exchanges and business transactions are conducted on the basis of coin, and paper convertible into it, the volume will be regulated by natural causes. Money, like merchandise, will go where there is demand for it, and where something of value can be obtained in exchange for it. When the financial panic of 1857 created a demand for gold in this country, a ready and continued supply came steadily from abroad to meet the necessities of our people, and brought speedy relief. Now, the enforced use of inconvertible paper currency not only obstructs the flow of gold from abroad, but drives from the country the precious metals yielded by our mines.

Good and bad currency cannot be retained in anything like equal proportions in a country having commercial relations with other powers and peoples. The latter will drive away the former. Gold and silver will flow steadily to those parts of the commercial world where business is done on the basis of an unvarying standard of values, and where every issue of paper is convertible into the precious metals at the option of the holder, because they are needed there. Such is the inevitable operation of the law of supply and demand; and the present limited and inadequate supply of coin in this country is chiefly due to this cause. Gold has become a commodity of trade, the price of which from day to day depends largely upon the will of those who have combined to control the market. This presents a serious obstruction to all productive industries and commerce, and introduces into business transactions an element of uncertainty, which often unsettles the most intelligent calculations, and tends to destroy confidence, without which there can be no real or permanent prosperity. Apparent, but fictitious prosperity has often followed large issues of irredeemable paper currency, but no result is more certain to flow from a given cause, than disaster and financial distress to follow a period of inflation of business and credit caused by excessive issues of paper currency. The philosophy which teaches by example, as well as the deductions of reason, establishes conclusively that there is no effective remedy for the evil but the removal of its cause.

The circumstances attending the issue of the United States notes now in circulation impose upon the Government a peculiar obligation to provide for their speedy and certain redemption in coin. They were issued in the exercise of a power which can be called into use only in a time of supreme necessity, and were paid out for the support of an army composed of brave and patriotic citizens who had responded to the call of their country in the hour of its extreme peril. To suffer a promise made at such a time and under such circumstances to be dishonored by subsequent indifference or non-performance, would be little better than open repudiation, and would affect injuriously our national name and credit.

It is worthy of note that for the most part those who now oppose the redemption of legal-tender notes, and who ask for a further issue and continued and indefinite reissue of the notes now in circulation, were most strenuous in their opposition to such issues during the civil war. The acts authorizing such issues were denounced as in violation of sound principles of finance, and not warranted by the Constitution. Their constitutional validity was resisted at every point, and subjected to the test of judicial decision in almost every court in the country, both State and national. The supreme judicial tribunal of the nation upheld the acts as measures of necessity in a time of great exigency, but it has neither decided nor intimated that such power may be exercised by Congress in time of public tranquillity. Indeed it is fairly inferable, from all the court has said in the various cases in which the question has been before it, that the issue of such notes in time of peace is not within the constitutional power of Congress. The language and argument of the court leave no reason to believe that it would sustain the claim of power to increase the volume of such issues or to reissue such as have been redeemed in obedience to law, when the public exigency no longer exists. Those who opposed such issues at a time of supreme necessity, and insist upon further issues when the emergency has passed away, put themselves in the attitude of opposing war measures in the midst of war, and advocating them in a time of profound peace. Congress carefully confined the operation of the act to the period of necessity by authorizing "the reissue from time to time, as the exigencies of the public interests shall require."

The government is bound, not only by economic considerations and proper regard for the interest of the people, but by express and repeated promises, to provide for the redemption in coin of all its issues of legal-tender notes. The original legal-tender act was regarded and

treated at the time of its adoption as a temporary measure, made necessary and justifiable only by the exigency of war, which taxed all the resources and energies of the nation. The first act authorizing such issues (February 25, 1862) is entitled "An act to authorize the issue of United States notes, *and for the redemption or funding thereof*, and for funding the floating debt of the United States"—language that significantly expresses the views of the Congress by which it was passed. It authorized the issue of $150,000,000 legal-tender notes, and made provision for funding them in bonds issued on the credit of the government, bearing interest in gold, and payable at a future day. This was the best the government could do in the midst of its struggle for existence and rightful supremacy. The state of the public credit did not admit the possibility of the immediate procurement of a sufficient amount of coin to redeem the notes absolutely. A well-settled principle of political economy forbade the issue of paper currency without providing for its redemption, and, in obedience thereto, Congress made the only practicable provision for the redemption of the notes which it authorized to be issued and stamped with the quality of legal tender. The act of July 11, 1862, which authorized a further issue of $150,000,000, contained a like provision, and further provided that any notes issued thereunder might be paid in coin, instead of being converted into bonds, at the discretion of the Secretary of the Treasury. The notes thus authorized were issued and accepted by the people upon the assurance that they had the right to fund them in gold-bearing bonds of the United States, and this consideration undoubtedly constituted an important element of their value, and gave them a quality in aid of their circulation and free acceptance in all business transactions. In the opinion of wise and patriotic men, who, as the representatives of the people, were charged with maintaining the indissolubility and supremacy of our national Union, it was necessary to resort to this extraordinary measure for the purpose of carrying the war to a successful termination. It was, in substance and effect, a national war loan, based upon the credit of the government, and coupled with a pledge for redemption, but the period of payment was to be thereafter determined when the public exigency would permit. It was not in the minds of those who devised and consummated the scheme, that the government was about to enter upon the issue of an irredeemable paper currency, which should permanently take the place of the world's measure of values. Nor was it claimed by the most earnest advocate of the measure that the Constitution had given to Congress power to issue a permanent paper currency as a

substitute for, and stamped by law with, the qualities which, in the estimation of political economists, could exist only in the precious metals. In the light of the experience of the civilized world, such a purpose would have been regarded as little better than financial madness, and its avowal by the authors of the legal-tender acts would surely have caused the defeat of the plan for exerting the borrowing power of the government by means of such issues.

But the purpose and meaning of the acts in question are not left open for forensic discussion, having been authoritatively settled by the unanimous opinion of the highest judicial tribunal known to our Constitution. As soon after the termination of the war as 1868, it was argued before the Supreme Court that the legal-tender notes of the United States were issued as money, a substitute for metallic currency, and that, having been made legal tender in payment of all debts, including (with certain exceptions) the government's own, of course, when presented for payment, if similar notes, being legal tender, were offered in exchange for them, the debt would be discharged, by a delivery of new notes of the same kind, and so on *ad infinitum*. To this argument the court replied:

"Apart from the quality of legal tender impressed upon them by acts of Congress, of which we now say nothing, their circulation as currency depends upon the extent to which they are received in payment, on the quantity in circulation, and on the credit given to the promises they bear. In other respects they resemble the bank notes formerly issued as currency.

"But, on the other hand, it is equally clear that these notes are obligations of the United States. Their name imports obligation. Every one of them expresses upon its face an engagement of the nation to pay the bearer a certain sum. The dollar note is an engagement to pay a dollar, and the dollar intended is the coin dollar of the United States—a certain quantity in weight and fineness of gold or silver, authenticated as such by the stamp of the Government."

This authoritative declaration of the Supreme Court defines clearly and precisely the meaning and intent of Congress in the acts which authorized the issue, and should be accepted as conclusive of the obligation and duty of the government to provide for the payment in specie of all such issues.

Nor is this all. Subsequent to this decision, and for the purpose of putting a quietus upon the mischievous discussion of the subject, Congress, on the 18th day of March, 1869, declared by public act that "the United States solemnly pledges its faith to make provision at the earliest practicable period for the redemption of the United States notes in coin."

These provisions of the various acts of Congress, which were passed with the approval of the Executive, the clear adjudication of the Supreme Court, as well as the plainest principles of political economy, and proper regard for the public welfare, commit the government to the redemption in coin of the notes issued under the circumstances before stated. National faith and honor could not be more distinctly or unequivocally pledged to the performance of a plain duty.

In view of these solemn and repeated pledges, it seems idle to resort to the consideration of elementary principles of finance to prove the evils of an irredeemable paper currency. In the face of such pledges, disregard of which would bring national dishonor, and serious, if not irreparable, injury to the public credit, it can hardly be necessary to discuss questions of expediency, or to point out the ills which the experience of the civilized world shows must follow a violation of well-known laws of political economy.

It is among the first and most important functions of government to give to its people a sound and stable currency, having a fixed relation to the standard of values in general use among nations. The true matter with which government has to do is not so much a question of volume as of soundness and stability of the currency. When it has established a currency of fixed and stable value, having a known relation to that of other powers, and furnishing a uniform medium of exchange, the volume may and should be left to be determined by the wants of trade and business. Natural causes, aided by individual effort and enterprise, will regulate the volume of currency far more wisely and with greater safety to business than acts of Congress imposing artificial limits, subject to increase or diminution at every session.

The existing provision of law making United States notes legal tender for all debts, both public and private, with certain exceptions relating to transactions with government, is an artificial barrier to the use of gold and silver, tending not only to prevent the flow of gold toward this country, but promoting the shipment abroad of our own production of the precious metals. For this reason Congress should abolish the legal-tender quality of the notes, as to all contracts made, and liabilities arising after a fixed day. The first day of January, 1879, being already fixed by law as the time when the redemption of United States notes then outstanding shall begin, it would be proper and safe to provide that such notes shall not be legal tender for contracts made, or liabilities incurred after the first day of January, 1877. Such an act would not too suddenly change the value of the notes, and would not affect injuriously either debtors or creditors, but would

remove a present obstruction to the retention of our gold and silver production, and create a demand for the return of gold now abroad, thus promoting final resumption by preparing the country for it.

In furtherance of the purpose of the act of the last Congress to provide for the resumption of specie payments, the Secretary recommends that authority be given for funding legal-tender notes into bonds bearing a low rate of interest. Such bonds should run for a longer period of time than those now authorized for refunding the interest-bearing debt, and should be made available to national banks for deposit to secure their circulation and other liabilities to the government, and should bear a rate of interest so low as not to cause too rapid absorption of the notes. It seems probable that a bond bearing interest at the rate of four per cent., would invite the funding of a sufficient amount of legal-tender notes to lessen materially the sum of gold which, in the absence of such provision, must be accumulated in the treasury by the 1st of January, 1879, to carry out the imperative requirements of the act of January 14, 1875. If it be apprehended that authority to the Secretary to fund an unlimited amount of notes might lead to too sudden contraction of the currency, Congress could limit the amount to be funded in any given period of time. The process being in no sense compulsory as to the holders of United States notes, and the rate of interest on the bonds being made low, it is not probable that currency which could find profitable employment would be presented for redemption in such bonds. Only the excess of notes above the needs of business would seek such conversion. Authority to the Secretary of the Treasury to redeem and cancel two million of legal-tender notes per month by this process would greatly facilitate redemption at the time now fixed by law, and besides would have the advantage of publicity as to the exact amount to be withdrawn in any given month. Bonds issued for this purpose should be of the denomination of fifty and one hundred dollars, and any multiple thereof, in order to meet the convenience of all classes of holders of United States notes. The faith of the government now stands pledged to resumption on and after January 1, 1879, and to the final redemption and removal from the currency of the country of the legal-tender notes as fast as they shall be presented for redemption, according to the provisions of the act of January 14, 1875. To resume on the 1st of January, 1879, without further legislation, would require the accumulation of a large amount of gold in the treasury in order to avert the possibility of failure of the plan. Such an amount of gold can be procured with difficulty, and not without more or less embarrassing effect upon the

trade and commerce of our own and other countries. The present abundance and cheapness of both currency and capital presents a favorable opportunity for the withdrawal and redemption of a considerable part of the outstanding legal-tender notes, thereby making easy and effectual the redemption now pledged. Such withdrawal of legal-tender notes, thus dispensing with the necessity for accumulating gold in the treasury in proportion to the amount withdrawn, would tend to appreciate those remaining outstanding and make it easier to protect and keep in circulation the silver coin now authorized to be issued.

The act last referred to is an express recognition of the duty and obligation of the government to resume specie payment at the day therein named; and, however widely different may be the views of intelligent persons upon the means adopted by Congress, it is gratifying to know that the end sought to be reached has met the concurrence of the country, and that a majority of the people, wherever the matter has been publicly and fully discussed, have signified their approval of the determination of Congress to be faithful to its pledges, and to relieve them of the ills of an irredeemable paper currency.

The act in question not only makes express provision for resumption at a fixed date, but commits the government to the use of all such means as may be needful to that end. If experience shall show that the means provided by Congress need to be supplemented by further legislation for the easier and more certain accomplishment of the end, it must be assumed that Congress will not suffer the great purpose to be impeded for want of such additional legislation. The act confers large powers on the Secretary of the Treasury, touching the issue of United States bonds for the purpose of procuring the supply of gold necessary to execute such of its provisions as go into immediate operation, and to provide for the redemption in gold of United States notes outstanding on and after the 1st of January, 1879. In this respect the power conferred on the Secretary is ample; but if, for any cause, it should be found impracticable to accumulate in the treasury a sufficient amount of gold to carry out the provisions of the act, the Secretary is left without the choice of other means to accomplish the end. It may, perhaps, be doubted whether the process of accumulating a large amount of gold by a given time could go on without meeting opposition from the financial powers of the world. It is safe to say that so large an amount of gold as would be required to carry out the purpose and direction of the act cannot be suddenly acquired. It can be done only by gradual processes, and by taking

advantage of favorable conditions of the money market from time to time.

The loss of interest on large sums hoarded in the treasury for a considerable period in advance of January, 1879, is a consideration not to be disregarded, although it should not be permitted to outweigh the benefits to result from full and complete execution of the act.

The Secretary regrets that the condition of the treasury has been such as to render it necessary to make sales of gold coin from time to time to meet current expenditures payable in currency. Such sales have been made in New York city, upon public notice, in accordance with the plan previously adopted, and have been limited from month to month to the amount necessary to keep on hand a sufficiency of currency to meet probable demands upon the treasury under existing appropriations. It is the desire of the Secretary to retain in the treasury, so far as practicable, the gold received from customs, and sales are discontinued whenever the balance of currency in the treasury is sufficient to meet currency payments.

THE NATIONAL BANKS.

The report of the Comptroller of the Currency contains a defence of the national-bank system. It also contains, in addition to the usual bank statistics, tables showing, by States, the ratio of national and State taxation imposed upon the national banks for three different years; tables showing the amount and rate of dividends made semi-annually by the national banks in the States and principal cities for the last seven years; a comparison, by States, of the amounts of deposits of institutions other than national banks, shown in returns obtained by the Comptroller, with those reported to the Commissioner of Internal Revenue for purposes of taxation; a table of the transactions of the New York clearing-house for twenty-two years, exhibiting the percentage of currency required in the payment of its large daily balances; also a table exhibiting the percentage of lost or unredeemed circulating notes of closed banks; together with a summary of the decisions of the Supreme Court of the United States in reference to the national banks.

The number of banks organized from the authorization of the system to November 1, 1875, is 2,307, of which 2,087 were doing business on the 1st of October last. From their reports of the date last named, it appears that the aggregate capital of these banks was $504,829,769; surplus, $134,356,076; circulation outstanding, $318,350,379; individual deposits, $664,579,619; loans, $980,222,951; specie, including coin cer-

tificates, $8,050,329; legal-tender notes, including United States certificates of deposit, $125,268,734; and on deposit with the United States Treasurer, $19,686,960.

The following table exhibits the capital stock and net deposits, and the classification of the loans of the New York City banks at corresponding dates for the last six years:

New York City.

	Oct. 8, 1870, 54 banks.	Oct. 2, 1871, 54 banks.	Oct. 3, 1872, 50 banks.	Sep. 12, 1873, 48 banks.	Oct. 2, 1874, 48 banks.	Oct. 1, 1875, 48 banks.
Capital stock	$73,435,000	$73,235,000	$71,285,000	$70,235,000	$68,500,000	$68,500,000
Net deposits	159,751,811	191,304,511	158,034,121	172,010,594	204,620,288	202,263,052
Loans—						
On U. S. bonds on demand	$9,012,964	$5,661,499	$3,180,738	$2,938,876	$4,721,638	$4,934,674
On other stocks, bonds' &c., on demand	53,809,603	70,185,331	53,409,625	57,916,130	51,478,691	50,179,384
Payable in gold	.....	.....	3,411,738	4,381,571	5,735,137	3,454,276
On single-name paper, without other security	.....	.....	.....	8,830,608	19,959,609	16,255,100
All other	105,146,590	122,806,969	123,183,625	125,093,703	119,881,979	127,266,299
Aggregate	167,969,157	198,653,799	183,185,726	199,160,888	201,777,054	202,089,733

The aggregate amount of call loans of the New York City banks, October 1, 1875, was $55,114,058: a little more than one-fourth of the entire loan of these banks, and a little more than one-fourth of their net deposits.

The amount of single-name paper, without other security, was $16,255,100. The amount of business paper, time notes secured by collateral, and accommodation paper, combined, was $130,720,575. The amount of accommodation paper (the issue of which has been one of the leading causes of the disasters that have occurred during the last two years) is much less than heretofore; and the sharp discrimination now being exercised by the banks, superinduced by severe losses through the purchase of this kind of paper, is rapidily bringing about a more honest and healthy use of credit by the commercial classes.

A statement of the rates of interest in New York city, carefully prepared from daily reports, shows the following results:

The average rate of interest for the year ending June 30, 1875, was 3 per cent. on call loans, and 5.6 per cent. on commercial paper, and for the six months ending October 31, 1875, the average rate was 2.6 per cent. on call loans, and 5.1 per cent. on commercial paper. The average rate for the preceding year was 3.8 per cent. on call loans, and 6.4 per cent. on commercial paper, and for the six months ending October 31, 1874, it was 2.7 per cent. on call loans, and 5.6 per cent. on commercial paper; from which it will be seen that the rates during the periods given above, for 1875, were somewhat less than for the corresponding periods for 1874.

The act of June 20, 1874, provides for the retirement of the circulation of national banks and the surrender of bonds held as security therefor, by the deposit of legal-tender notes in the treasury for the amount of circulation thus retired; and the act of January 14, 1875, provides for the unlimited issue of circulating notes to national banks, subject to the provisions of law, and the reduction of the legal-tender notes at the rate of eighty per cent. upon the amount thus issued to national banks, until the legal-tender notes shall be reduced to $300,000,000. Under the operation of these two acts $15,721,175 of national-bank notes have been issued; $4,734,500 from June 20, 1874, to January 14, 1875, and $10,986,675 from January 14 to November 1, 1875, upon which latter amount $8,763,756 of legal-tender notes have been retired.

Banking having been made free by the act of the last Congress, without restriction as to the amount of circulating notes that may be issued to any part of the country, it is believed that such currency will distribute itself according to the demands and necessities of business. The privileges which attach to national banks being open to individuals in all parts of the country, capital will not be slow to establish additional banks, or to increase the circulation of those already in existence, whenever and wherever the exigencies of business shall render it apparent that an increase of circulation is desirable. But it does not seem probable that such demand will arise to any considerable extent while the volume of legal-tender notes continues so great as to cause large sums to lie idle in commercial centres, for want of safe and profitable investment.

The whole amount of legal-tender notes deposited to retire national-bank circulation since June 20, 1874, is $37,576,179, (including $3,813,675 deposited by banks in liquidation previous to the passage of that act,) of which $17,337,537 has been paid out for the redemption of national-bank notes, leaving $20,238,642 thereof on deposit in the treasury on the first day of November last.

The operation of the acts of June 20, 1874, and January 14, 1875, may be briefly stated in tabular form as follows:

National-bank notes outstanding June 20, 1874		$349,894,182
National-bank notes issued from June 20, 1874, to January 14, 1875	$4,734,500	
National-bank notes retired from June 20, 1874, to January 14, 1875	2,767,232	
		1,967,268
Amount outstanding January 14, 1875		351,861,450

National-bank notes retired from January 14, 1875, to November 1, 1875	$17,261,223	
National-bank notes issued from January 14, 1875, to November 1, 1875	10,986,675	
		$6,274,548
Amount outstanding November 1, 1875		345,586,902
Legal-tender notes retired, being 80 per cent. of circulation issued from January 14, to October 28, 1875		$8,763,756
Legal-tender notes deposited in the treasury under act of June 20, 1874, together with $3,813,675 deposited by banks in liquidation previous to the passage of that act	$37,576,179	
Amount paid out for redemptions	17,337,537	
Amount remaining on deposit for redemption of national-bank notes, November 1, 1875		$20,238,642

The Comptroller recommends that no present change be made in these two acts, so far as they relate to the national banks.

The amount of cash reserve held by the national banks, including their redemption fund on deposit with the Treasurer on October 1, 1875, the date of their last report, was $149,460,452, which is $25,365,379 more than they would have been required to hold upon circulation and deposits prior to the passage of the act of June 20, 1874, repealing the provision requiring reserve upon circulation; and the cash reserve held by New York City banks at the last-named date was $60,467,759, which also exceeds by $5,324,667 the amount that would have been required upon circulation and deposits previous to the passage of that act; from which it is seen that, on account of the redundancy of money, the stagnation of business, and the consequent low rate of interest during the past year, the effect of the act repealing the reserve upon circulation cannot yet be definitely ascertained.

COINAGE.

The report of the Director of the Mint presents in detail the operations of the mints and assay offices.

The amount of bullion received and operated upon during the last fiscal year was—

Gold	$43,152,584 50
Silver	18,304,406 07
Total	61,456,990 57

Deducting redeposits, bars made and issued by one institution and deposited at another, the deposits were—

Gold	$38,556,293 90
Silver	16,070,626 54
Total	54,626,920 44

The coinage for the fiscal year was as follows:

	No. of pieces.	*Value.*
Gold	1,739,062	$33,553,965
Silver	22,823,216	10,070,368
Minor	14,629,500	230,375
Total	39,191,778	43,854,708

The silver coinage consisted of—

	No. of pieces.	*Value.*
Trade-dollars	5,697,500	$5,697,500
Subsidiary silver coin	17,125,716	4,372,868

From the close of the fiscal year to October 31, 1875, the subsidiary silver coinage has amounted to $3,895,010, which, added to the coinage of the year, makes a total subsidiary silver coinage of $8,267,878.

The bars manufactured were—

Gold	$16,019,879 93
Silver	7,029,430 54
Total	23,049,310 47

At the mint in San Francisco a large refinery has been equipped and put in successful operation, and that institution is now in a condition to meet the large and increasing demand for refining and coinage at that point.

The rooms formerly occupied by bankers in the assay office at New York have been altered and repaired, and will hereafter be devoted to the operations of that office. The additional capacity thus given is necessary to meet the increased demands for refining bullion in that city.

Additional annealing furnaces have been erected at the mint in Philadelphia, and the coinage machinery at the Carson City mint has been duplicated, thereby increasing the coining capacity of both institutions.

The change in the relative values of gold and silver is considered at some length by the Director, and the various causes producing the result are clearly set forth in his report, and are worthy of careful attention.

The diminished use of silver coin in various European countries, and the increasing production of our silver mines, would appear to render the present a very favorable time for procuring supplies of bullion for the manufacture of silver coin to be used in the redemption of the fractional currency.

So much of the act of January 14, 1875, as relates to the purchase and coinage of silver for redemption of fractional currency, has been put into partial operation, and is now being executed as rapidly as the exigencies of the case will admit. Since the passage of the act, 8,243,642 ounces of silver bullion have been purchased, at an average price of $111\frac{4}{10}$ cents per standard ounce. The mints have been put into active operation, and the aggregate amount of silver coin now in the treasury is $10,000,000.

The Secretary has been urged to begin the work of resumption by issuing silver coin in redemption of outstanding currency, and it has been insisted that, under the first section of the act, he has no discretion, but must issue the silver coin as fast as it can be turned out from the mints. While the act requires the coinage to proceed as rapidly as practicable, it does not, in terms, require the Secretary to issue it at once; nor does it fix the period of time when the issue must begin. For obvious reasons, it has been, and yet is, impracticable to put or keep silver coin in circulation. The present depreciation of currency below gold precludes the probability that silver would remain in circulation, and, therefore, it has been deemed impracticable to issue it for the present, or until, by the nearer approach of, or greater preparation for, general resumption, there shall be such an appreciation of the circulating currency of the country as would give assurance that the silver coin to be issued would not be hoarded for shipment abroad, or converted into plate and jewelry, or reduced to bullion.

The report of the Director gives valuable information in relation to the precious-metal mines of the United States, and of the extensive developments recently made in the Pacific States. The mining industry of the precious metals appears to be in a very prosperous condition, and affords every reason to believe that the yield for the next four or five years will show a marked increase over the production of recent years.

REVENUE FROM CUSTOMS.

The receipts from customs for the year ending June 30, 1874, were $163,103,833 19, and at the corresponding date of 1875 they were $157,167,722 35, a decline of $5,936,111 34.

The receipts for the first quarter of the current fiscal year were $44,233,626 25, while for the corresponding period of last year they were $46,651,200 10, showing a decrease of $2,417,573 85.

For the months of October and November, 1875, the receipts were $23,936,950 23, and for the same months of last year they were $22,755,811.

The effect upon the customs receipts of the act of February 8, 1875, imposing duties on certain articles therein enumerated, and making additions to the free list, cannot yet be stated with certainty. Nor is it possible, at present, to determine with accuracy the effect of the act of March 3, 1875, restoring the ten per centum of duties repealed by the act of June 6, 1872.

The following statement of importations of the classes of merchandise chiefly concerned, is derived from the Bureau of Statistics, and, to some extent, serves to show the effect of the act of March 3, 1875, on the duties received:

Value of importations of cotton, glass and glassware, India rubber and gutta-percha, iron and steel, leather, metals not otherwise provided for, paper, straw, wool, (including hair of alpaca, &c.,) and manufactures thereof, for the nine months ending September 30, 1874	$94,917,416 00
Value of importations of same articles for corresponding period of 1875, (including the seven months next succeeding the act of March 3, 1875)	81,223,542 00
Decrease	13,693,874 00

This decrease was occasioned principally by the falling off in two classes of importations, viz:

Iron and steel and manufactures thereof	$8,260,066 00
Wools and manufactures thereof	3,944,208 00
	12,204,274 00

Returns for the four months ending June 30, 1875, show that of importations for that period amounting to $30,547,005, duties have been paid on $23,629,606 withdrawn for consumption, yielding $10,954,719 of revenue. In this amount is of course included the ten per centum restored by the act of March 3, 1875, showing an apparent increase for four months of $1,095,471 90. But in this connection there is to be considered the fact that, for the corresponding period of the year 1874, the importations of the same classes of merchandise amounted to $36,022,467, showing a decrease in importations for the four months

ending June 30, 1875, of $5,475,462, of which $4,800,378 is due to the falling off of importations of iron and steel and manufactures thereof. It is, therefore, difficult to determine, in the light of returns now at hand, to what extent the apparent increase of revenue resulting from the repeal of the ten per cent. reduction is offset by the decrease in importations, and, consequently, in the amount of entries for consumption on payment of duties.

In relation to the twenty-five per cent. increase of duty on sugar and molasses, under the act of March 3, 1875, it is still more difficult to determine the effect on the revenue. Owing to the change of classification and of drawback on refined sugar exported, together with the fact that hardly sufficient time has elapsed to enable a comparative statement of much value to be prepared, the increase of revenue derived from the additional duty levied cannot be given. The actual increase of duty collected from the time the act took effect, March 3, 1875, to June 30, 1875, was $2,425,017, but how far this increase is affected by the classification and drawback cannot be determined with accuracy.

Pursuant to the act of June 18, 1874, admitting free of duty articles intended for the International Exposition of 1876, at Philadelphia, under such regulations as the Secretary of the Treasury shall prescribe, collectors of customs at the various ports have been furnished with regulations designed to cover the subject in the spirit and intent of the act. It is hoped that, while these regulations will afford all reasonable facilities for the importation of such articles as may be consigned for exhibition from the various nationalities of the world, they are so guarded as to prevent frauds upon the revenue by persons who, under pretence of being exhibitors, may attempt abuses of the privileges accorded them.

The general views held and suggestions made in the report submitted to Congress in December, 1874, in the discussion of the tariff laws, regarded solely as revenue measures, are still entertained, and are referred to now with the added suggestion, that experience has shown that when duties are imposed upon any articles at rates so high as to be almost prohibitory, injury is done the revenue by lessening the amount of the importation of such articles, besides inducing a tendency to augment the evil of their clandestine introduction.

In the collection of duties upon importations, two evils are chiefly operative to prevent the government from realizing the full measure of revenue—first, smuggling, and secondly, undervaluation.

The first of these evils is more generally prevalent, especially on the

northern frontier, than is commonly supposed, the difficulties attending a proper surveillance of that frontier, under existing circumstances, being very great, if not in some respects insurmountable. Without going into full details, it may be said, by way of illustration, that in the four collection districts of Vermont, Champlain, Oswegatchie, and Cape Vincent, having a frontier line of more than three hundred miles, with eight principal ports or stations and forty-one minor stations, after deducting the number permanently employed at such principal points and four for service in Canada in connection with the sealing of cars, there are but fifty-nine officers remaining for service at the minor stations and as a coast-guard to prevent smuggling. Deducting from this number one officer for permanent service at each minor station, there remain but fourteen as a preventive force, or less than one man for every twenty-one miles of frontier.

These statistics apply to portions of the border which offer speedy and direct means of travel between Canada and the United States, and which, during several months of the year, are thronged by travellers of every condition and with every variety of object in view, from those bent merely on pleasure or legitimate business, to those whose chief occupation is to defraud the revenue.

Information obtained by the Department, from trustworthy sources, renders it quite certain that systematic frauds have been perpetrated by smuggling over the border wines, brandy, and other articles of merchandise. Similar observations might be made as to other parts of our frontier.

The second general cause which operates to prevent the government from receiving its full measure of dues is undervaluation, a source of perhaps greater loss than the direct offence of smuggling. This evil is attributable, in part, to the devices of dishonest importers, in part to the fluctuations in market values, but more, probably, to the defects of the appraisement system itself. Without disparagement of the class of officers known as local appraisers, many of them of long experience and the most unquestioned integrity, it cannot be denied that there is often very great diversity at the different ports regarding the classification and valuation of merchandise. While this diversity sometimes arises from an honest difference of opinion, it not unfrequently happens that there is collusive action between assistants or other subordinates of the appraisers, and the importers, which, when once begun, is a source of constant loss to the revenue as well as of injury to honest merchants.

To correct these evils the office of general appraiser was created; and to those officers, five in number, supervision over appraisers and

their assistants is committed by law. But can satisfactory results be anticipated from their labors when the large extent of their field of operations is considered in connection with their limited number? To the general appraiser at Boston are assigned ports and districts, thirty-five in number. To the general appraiser at New York, the district of New York city. To the general appraiser at Philadelphia, twenty-two ports and districts. To the general appraiser at Baltimore, fifty-seven districts and ports. To the general appraiser at New Orleans, eighteen districts and ports.

The labors and duties of these officers have been greatly increased by the privilege of immediate transportation granted to importers in the interior by the act of 1870, whereby the number of ports requiring the attention of the general appraisers is enlarged and uniformity of valuation rendered much more difficult.

The first general suggestion which presents itself by way of remedy for some of the defects of the present system of appraisements is an increase in the number of general appraisers, to be drawn from the ranks of subordinate officers of requisite ability and experience; and, secondly, a consolidation of customs districts, by which minor districts would be merged in larger ones, thus reducing the sphere of action of this class of officers, and enabling them to concentrate their efforts to better advantage.

In connection with the general subject of a consolidation of customs districts, it may be remarked that an examination of statistical returns from all the districts in the United States will show that in some of them the amount of business transacted is not sufficient to justify keeping up the corps of officers whose aggregate compensation exceeds the amount of revenue collected by them, and who can render adequate return only by acting as a preventive or detective force. That species of service requires a greater number of officers to guard exposed lines of coast and frontier than existing circumstances will permit. Consolidation of a number of districts would facilitate the performance of such duties, besides securing a reduction of the aggregate expenses. And, as auxiliary to this, it is recommended that fixed salaries be made applicable to all ports and districts, and that all officers be required to pay into the Treasury all fees, perquisites, and emoluments, of whatever nature or character, received by them.

Another remedy, and the most effective which could be adopted for correcting the evils of the appraisement system, is the substitution, so far as practicable, of specific for ad-valorem duties. This change would work a great reduction in the amount of labor requiring

the knowledge of experts. The entire process of ascertaining duties would be more simple, certain, and safe. Opportunities for collusive undervaluation would be greatly lessened, and if errors were committed they could not, as to specific rates and amounts, be accounted for except upon the supposition of culpable negligence or actual fraud; whereas, in respect to ad-valorem duties, an error of judgment may readily be assigned as a sufficient explanation.

Such change, either with or without a decrease in the number of dutiable articles, would insure a very considerable reduction of the force at the chief ports, with a consequent diminution of expenses.

The revised tariff contains thirteen schedules, embracing upwards of fifteen hundred dutiable articles which are either distinctly specified or included in general or special classifications. To these must be added nearly one thousand articles not enumerated, but which, under the general provisions of sections 2499 and 2516 of the Revised Statutes, would be assigned a place as dutiable either by virtue of similitude to some enumerated article, or as articles, manufactured or unmanufactured, not otherwise provided for, making over twenty-five hundred in all. The free list contains an enumeration of over six hundred articles, thus constituting a total aggregate of more than three thousand articles embraced by the tariff either as dutiable or free.

Of articles subject to duty, and either named in, or subject to specific classification by schedule, eight hundred and twenty-three pay ad-valorem rates varying from ten to seventy-five per cent.; five hundred and forty-one pay specific duties according to quantity or weight; and one hundred and sixty pay compound or both specific and ad-valorem rates.

The articles to be dealt with under sections 2499 and 2516, which, as before stated, number nearly one thousand, must necessarily be subject to either specific, ad-valorem, or compound duties, but in what proportion it is impracticable to state.

From this general recapitulation of the features of the tariff with reference to the number of articles embraced in it, and the variety of rates applicable thereto, to say nothing of questions arising under the free list, it is evident that every step taken towards perfecting a more compact and simple system of duties on imports must contribute not only to the ultimate safety of the customs revenue but to its more prompt and economical collection.

But the only sure remedy for the evils of smuggling, and collusive or other undervaluations, lies at last in the selection and retention of faithful and competent officers. Neither laws nor regu-

ations, however stringent or minute, will accomplish the desired results without faithful officers to execute them.

Referring to the estimates of receipts and expenditures for the next fiscal year, and to the necessity now existing for the accummulation of gold in the Treasury, the Secretary again calls the attention of Congress to the effect of the act of 1872, repealing the duty on coffee and tea. In his last annual report the Secretary expressed the opinion that the act admitting these articles to free entry had been without advantage to consumers in this country, but that the duty repealed had been added to the cost abroad. The repeal of duty has been followed by increase of export duty in the countries of production, and this increase is paid by consumers. Subsequent consideration of the subject has confirmed the views heretofore expressed, and the Secretary recommends restoration of the duty on the articles in question. Being imported in large bulk, the duty is easily collected, and the opportunities for fraudulent introduction are comparatively slight.

During the fiscal year 1875 the cost of collecting the revenue from customs was reduced more than half a million dollars per annum, by dropping from the rolls in the various customs districts a considerable number of officers and employés, and by reducing the salaries of others, which are not fixed by law, but are under the control of the Secretary.

There has been a large falling off in the aggregate amount of fines, penalties, and forfeitures connected with the customs, which constitute a part of the appropriation for the expenses of collecting the revenue from customs. The amount received from that source for the first quarter of the current fiscal year is only $28,521 75, and it is estimated that for the entire year the amount will fall about $900,000 below the sum received from the same source for the fiscal year 1873.

In view of this decline, further reduction of expenses has recently been made at the rate of a little more than a million dollars per annum, which secures a decrease of nearly six hundred thousand dollars for the remainder of this fiscal year. Whether the reduction can be maintained without danger to the revenue remains to be determined. The power of the Secretary, however, does not extend beyond the appropriations made by Congress, and it is his purpose, as well as his duty, to keep the expenses within the amount authorized by law.

A detailed statement of the various sums of money refunded under the provisions of the act of March 3, 1875, and other acts of Congress relating to the revenue, together with copies of the rulings under which repayments have been made, has been prepared, and may be found in the tables accompanying this report.

INTERNAL REVENUE.

The report of the Commissioner of Internal Revenue, herewith transmitted to Congress, presents fully the condition of this branch of the revenue, with estimated receipts for the remainder of this fiscal year, and explains, as fully as can now be done, the effect of the act of the last Congress upon receipts from the tax on distilled spirits and tobacco.

The following tabular statement shows the comparative receipts, from the various sources of internal revenue, for the fiscal years ending June 30, 1874 and 1875, respectively:

Sources.	1874.	1875.	Increase.	Decrease.
Spirits	$49,444,089 85	$52,081,991 12	$2,637,901 27	.....
Tobacco	33,242,875 62	37,303,461 88	4,060,586 26	.....
Fermented liquors	9,304,679 72	9,144,004 41	.....	$160,675 31
Banks and bankers	3,387,160 67	4,097,248 12	710,087 45	.....
Penalties, &c.	364,216 34	281,107 61	.....	83,108 73
Adhesive stamps	6,136,844 64	6,557,229 65	420,385 01	.....
Back taxes under repealed laws	764,880 14	1,080,111 44	315,231 30	.....
Total	102,644,746 98	110,545,154 23	8,144,191 29	243,784 04

This table is made up from the reports of collections made to the Commissioner of Internal Revenue, which include commissions on sales of stamps paid in kind, and therefore do not enter into the actual cash receipts of the treasury. They include, also, sums reported as collected but not actually paid into the treasury at that time. Hence there is an apparent discrepancy between the totals here shown and the aggregate amount deposited on account of internal revenue as shown by warrants covering the same into the treasury for the fiscal year.

The receipts from internal revenue for the first quarters of the fiscal years ending, respectively, June 30, 1875 and 1876, were as follows:

First quarter of 1875	$26,314,615 33
First quarter of 1876	28,199,723 50
Increase	1,885,108 17

The aggregate receipts for the months of October and November, of the current year, were $19,638,907 19, while for the same months of last year they were $17,476,202 99, showing an increase of $2,162,704 20.

Since the last annual report to Congress fifty-six collection districts have been abolished by consolidation with other districts, with an estimated annual saving to the government of about one hundred and seventy thousand dollars.

During the past fiscal year frauds of unusual character and magnitude were discovered in this branch of the service, which appear to

have been carried on with more or less injury to the revenue for several years past. The report of the Commissioner sets forth in detail the manner in which such frauds have been perpetrated, and gives the estimate of that office of the amount of probable loss to the revenue, with suggestions of modifications of the law deemed essential to more certain collection of the tax on distilled spirits. The attention of Congress is invited especially to that feature of the report. The recommendations made therein for modification of the law with a view to the prevention of like frauds in future, are concurred in by the Secretary, and commended to the consideration of Congress. So long as it is necessary to maintain a tax on distilled spirits amounting per gallon to three or four times the cost of production, it may be expected that the great temptation to avoid payment of the tax, on at least a part of the production, will excite the cupidity of producers, and that every possible device for evasion will be used. Each gallon of spirits that escapes payment of tax increases by so much the profit to the producer. It cannot be denied that a tax imposed for revenue purposes is regarded by many persons as a harsh exaction from the citizen, to be thwarted if possible, or that violations of the punitive provisions of revenue statutes are looked upon by many as venial offences. But the necessities of government, including the maintenance of national faith, imperatively demand the closest collection of all the revenues levied by law; and, besides, due regard for the interest of those who meet honestly and promptly the demands of government upon them, in this respect, requires that all others shall be made to bear their proper share of such taxation. Every evasion of tax by dishonest persons must eventually increase the burdens of honest taxpayers. These considerations should induce every citizen to render proper aid to the government in its efforts to collect the revenue, by giving information of violations of law and of frauds on the revenue, which may come to his knowledge; but experience shows that few are willing to give such information unless they can receive direct pecuniary compensation.

When recently it became known that the government was losing a large part of the revenue due from distilled spirits, it was found extremely difficult to obtain exact or satisfactory information as to the method of perpetrating the frauds, or to ascertain, with reasonable certainty, who were the guilty parties. It was obvious that frauds on the revenue were being extensively practiced, and it was equally clear that this could not be successfully done, under existing provisions of law, without guilty connivance or participation by inferior officers, and at least culpable negligence on the part of others of higher grade.

In the opinion of the Secretary, the circumstances seemed not only to jtstify but require a resort to means other than those in ordinary use for detection by the Bureau of Internal Revenue. Accordingly, the appropriation for detecting and bringing to trial and punishment persons engaged in counterfeiting, and for detecting other frauds upon the government, was drawn upon for this purpose. The Solicitor of the Treasury, who is charged with the proper use and disbursement of that fund, was directed to inquire into the alleged frauds on the revenue in the matter of distilled spirits, and was instructed to spare no proper effort to detect the guilty parties, and furnish their names, with the evidence against them, to the proper officers of the Department of Justice. This duty was entered upon with energy, and, after the existence of conspiracies and combinations to defraud the government was developed, the investigation was continued, in co-operation with officers of internal revenue, and resulted in the certain detection of frauds on the revenue of more than ordinary significance. Under the direction of the Commissioner of Internal Revenue, the investigation has been pursued with commendable energy and zeal. A considerable number of officers of internal revenue have been found to be in guilty collusion with distillers and rectifiers in fraudulent practices, whereby large sums were lost to the revenue. The evidence thus acquired having been reported to the proper district attorneys, has resulted in a large number of prosecutions for conspiracy, duplicate use of stamps, and other offences. So far as these prosecutions have been completed, they have, with few and comparatively unimportant exceptions, resulted in convictions. A large number of distillers, rectifiers, and subordinate officers of internal revenue, have pleaded guilty to indictments against them, thus confessing their offences, and thrown themselves upon the mercy of the court.

Besides the institution of criminal proceedings, civil suits have been brought upon the bonds of officials and of distillers; distilleries and spirits have been seized as forfeited to the United States for violations of law; and, wherever the evidence warranted, assessments have been made against distillers for delinquent taxes and placed in the hands of collectors, with instructions to collect by process of law. Urgent applications have been presented for the compromise of many of the cases, but it has been deemed better for the interest of the government to allow all of them to take the usual course in the courts; hence, all such applications have been denied.

The Secretary considers it important to the future collection of the revenue, that all parties engaged in persistent and systematic frauds

shall be visited with the severest penalties of the law. To this end instructions have been repeatedly given to officers of internal revenue, and others in the service of this Department, to render all proper assistance to the officers of the Department of Justice in the prosecution of the cases now pending, and in the detection and punishment of such guilty parties as have not yet been indicted. It is deemed of especial importance that officers of the government who have betrayed their trust, and engaged in frauds on the revenue, shall be brought to speedy and condign punishment. Those who are intrusted with official duties and responsibilities should be given to know that the government will not deal lightly with them when they prove to be guilty of corruption in office. Taxpayers cannot be expected to deal honestly with government when its own trusted officers are permitted to participate in frauds on the revenue, without incurring swift and certain punishment. The highest guaranty for the faithful collection of revenue is in the vigilance and integrity of officials. This guaranty can be secured only by careful selection in the first instance, by retaining in office such as have proved their efficiency and honesty, and by prompt dismissal and vigorous prosecution of such as have been found faithless.

EXPORTS AND IMPORTS.

The comparative value of the exports and imports of the United States for the last fiscal year, in coin, appears, from official returns to the Bureau of Statistics, to be as follows:

Exports of domestic goods	$499,284,100 00
Exports of foreign goods	14,158,611 00
Total exports	513,442,711 00
Imports of goods	533,005,436 00
Excess of imports over exports	19,562,725 00

For the fiscal year ended June 30, 1874, the excess of exports over imports was $18,876,698.

Exports of specie and bullion	$92,132,142 00
Imports of specie and bullion	20,900,717 00
Excess of exports over imports	71,231,425 00
Total excess of exports of goods, specie, and bullion, over imports of same	$51,668,700 00

While the returns of the values of exports by sea are substantially accurate, it has not been practicable to obtain complete statements of the exports to Canada in railway cars, owing to the fact that there is no law requiring persons exporting merchandise by land conveyance to file full manifests of the exported goods with collectors of customs.

The Commissioner of Customs of the Dominion of Canada has, however, furnished detailed statements from which it appears that the value of exports to Canada during the last fiscal year was $15,660,218 in excess of that returned by the customs officers of the United States, which would increase the total exports of the year by that amount, (*i. e.*, from $513,442,711 to $529,102,929,) and reduce the excess of imports of merchandise over exports to $3,902,507.

There was withdrawn from bond for consumption, in excess of that entered for warehouse during the past fiscal year, merchandise of the value of $2,992,061.

The total exportation of specie and bullion was greater than that for the preceding year by $25,501,737; while the exports of domestic goods have decreased in value $70,149,321.

Importations have decreased to the amount of $34,400,906 as compared with those of the preceding fiscal year, and of $109,024,103 as compared with the fiscal year ended June 30, 1873.

There was an increase in the value of the importation of the following articles: Tea, $1,561,469; fur-skins, undressed, $664,907; fur-skins, dressed, and furs, $486,558; argols, $374,108; drugs, chemicals, dyes, &c., $1,309,864; dye-woods in sticks, $405,891; gums, $526,364; hides and skins, $2,092,025; silk, raw, $650,298; silk, manufactures of, $384,141; fancy goods, $1,104,962; fruits, $4,255,002; jute, grasses, and manufactures of, $566,983; precious stones, $1,124,803; seeds, $2,033,766; wool and manufactures of, $547,469.

There was a decrease in value of importations of articles brought back to the United States, $1,267,286; coffee, $4,457,479; India rubber, $1,521,239; breadstuffs, $1,557,840; pig iron, $1,829,354; bar iron, $1,294,174; iron rails, $917,977; steel rails, $6,908,148; machinery, $596,714; band, hoop, and scroll iron, $176,512; anchors, cables, and chains, $97,776; old and scrap iron, $703,006; fire-arms, $218,226; steel bars, ingots, sheets, and wire, $420,149; cutlery and tools, $385,037; other manufactures of iron, $1,770,533; barks, $532,625; cochineal, $353,134; indigo, $331,152; madder, $387,160; nitrate of soda, $369,526; soda and salts of, $506,137; tin, in bars, blocks, or pigs, $853,557; wood and manufactures of, $2,770,536; wood, unmanufactured, $366,856; live animals, $543,815; cotton manufactures, $455,468; earthen, stone,

and chinaware, $617,145; flax and manufactures of, $699,146; glass and glassware, $452,849; hair and manufactures of, $343,986; hemp, raw, $566,664; lead, $714,812; opium and extract of, $502,435; provisions, $517,499; salt, $531,724; sugar and molasses, $7,816,686; tobacco and manufactures of, $1,844,021; wines, spirits, and cordials, $866,942.

There was an increase in certain articles exported, as follows, the values being stated in currency: Cotton manufactures, $976,042; lard, $8,592,503; cheese, $1,760,608; iron manufactures, $1,424,188; sewing machines, $203,633; drugs and chemicals, $150,592; hides and skins, $2,169,343; furs and fur-skins, $1,062,059; leather and leather goods, $2,538,278; brass, $497,098; clocks and parts of, $215,407; copper ore, $619,128; copper, in pigs, bars, sheets, and old, $919,079; fruits, $639,841; ginseng, $210,166; hops, $1,258,528; fire-arms, $3,162,182; lead and manufactures of, $127,265; manures, $332,500; oil cake, $1,038,940; quicksilver, $495,275; seeds, clover, timothy, and garden, $553,293.

The exports of domestic gold and silver in excess of the imports was $62,953,412, as against $31,244,780, for the previous year.

There was a decrease in the value of the exportations of the following articles: Agricultural implements, $464,381; hogs, $886,622; bacon, and hams, $4,771,295; Indian corn, $313,014; Indian-corn meal, $238,866; rye, (1,357,384 bushels,) $1,363,772; wheat, (17,992,751 bushels,) $41,813,596; railroad cars, $641,037; bituminous coal, (158,301 tons,) $758,723; anthracite coal, (85,756 tons,) $444,458; cotton, raw, (98,183,400 lbs.,) $20,584,955; hemp and manufactures of, $243,898; illuminating oils, (25,668,571 gallons,) $10,530,594; spirits, distilled, (1,820,222 gallons,) $813,262; spirits of turpentine, $834,389; tallow, $2,443,117; tobacco, leaf, (94,195,891 pounds,) $5,157,632; sailing-vessels sold to foreigners, (14,745 tons,) $617,528; shooks, staves, and headings, $1,217,062; timber, sawed and hewed, $2,064,318; wood and other manufactures of, $332,256.

COMMERCE AND NAVIGATION.

There is little change in the proportion of the foreign carrying trade transacted in foreign vessels, about 74 per cent. of imports and exports, during the last fiscal year, having been carried in foreign vessels as against about 72 per cent. for the preceding year, and 76 per cent. for the fiscal year 1872.

The Register of the Treasury reports the total tonnage of vessels of the United States to be 4,853,732 tons, an increase of 53,080 tons over

that of the fiscal year ended June 30, 1874, exclusive of the canal-boat tonnage, amounting to about 48,000 tons, exempt from enrolment and license under the act of Congress approved April 18, 1874.

The actual increase is believed to be about 141,878 tons, this amount being the excess of gains over losses during the year; but this aggregate has been reduced to 53,080 tons (the increase first above mentioned) by omitting the tonnage of the exempted canal-boats, and by corrections of tonnage returns, about 40,000 tons.

The following table exhibits the total tonnage for the last two years:

	1874.		1875.	
	Vessels.	Tons.	Vessels.	Tons.
Registered	2,728	1,428,923	2,981	1,553,828
Enrolled and licensed	29,758	3,371,729	29,304	3,299,904
Total	32,486	4,800,652	32,285	4,853,732

The tonnage of vessels built, as given by the Register, is 297,639, being a decrease from that of the preceding year of 135,086 tons or over 31 per centum. The number of vessels built was 1,301.

Official numbers have been awarded by the Bureau of Statistics since July 1 to November 10, 1875, to 894 vessels, whose carrying capacity amounts to 146,115 tons. Of this number, sixty-three were new seagoing vessels of 100 tons and over; forty-five of 1,000 tons and over; three of 2,000, and two of 3,000 tons, each, with an aggregate tonnage of 100,226 tons.

REVENUE MARINE.

The past year is the first of the administration of this branch of the public service with the advantage of the completion of the reorganization begun four years ago. The improvement resulting from this reorganization more than equals all that was anticipated. The report of the commission which proposed the plan does not indicate that any other benefit was expected than a reduction of the expenses of the service. The result shows, however, not only a considerably larger reduction than was anticipated, but the attainment of a much higher degree of efficiency than characterized the service in former years. The commission estimated the annual cost of maintaining the service, when the reorganization should be accomplished, at $943,639 The expenditure of the last fiscal year was $897,899 56, an amount

considerably lower than that of any previous year since separate accounts of expenditure for the maintenance of this service have been kept, and about $300,000 less than the average annual expenditure previous to the beginning of the reorganization.

One of the chief means by which this reduction has been accomplished is the substitution of small and swift light-draught steamers and small sloops for the larger steamers and unserviceable schooners formerly in use, a change which, through the greater speed of the new vessels, their ability to navigate bays, inlets, bayous, and other waters inaccessible to the old ones, and their especial adaptation for rendering assistance to distressed vessels, has greatly enhanced the usefulness of the service.

The revenue vessels designated by the President for winter cruising, under the act of December 22, 1837, were especially serviceable in the humane work of assisting vessels in distress during the last winter. Throughout the month of February the marine columns of the principal commercial newspapers contained daily accounts of such relief administered to suffering vessels.

The general services performed by revenue vessels during the last fiscal year may be summarized as follows:

Number of vessels in distress assisted	195
Number of lives saved	81
Number of vessels seized or reported for violation of law	1,245
Number of vessels boarded and examined	22,225
Number of miles sailed	198,117

Besides the above, various services of a special nature have been rendered, such as conveying outfits and supplies to life-saving stations, and assisting the operations of the Navy.

A comparison of the foregoing exhibit, with the following statement of services performed by the revenue vessels during the ten years preceding the reorganization, strikingly illustrates the relative advancement of the service in efficiency.

Statement of services performed by revenue vessels during the period from 1861 *to* 1870, *inclusive.*

	Vessels in distress assisted.	Lives saved.	Vessels seized or reported for violation of law.	Vessels boarded and examined.	Miles sailed.
Total during ten years	1,218	187	1,163	132,988	1,510,651
Average	122	19	116	13,300	161,065

There have been added to the fleet during the year one small propeller of about thirty-two tons, commissioned for duty in the harbor and bay of San Francisco, and two sloops which do duty as revenue cruisers on the Atlantic coast, and, at the same time, are specially used in connection with the life-saving service. Plans and specifications have also been prepared, and proposals invited, for the construction of a small steamer for harbor duty at Philadelphia. The steamer authorized to be built for the Pacific coast is well advanced, and it is expected will be ready to go into commission next season.

LIFE-SAVING SERVICE.

The stations in operation during the past year are located in districts Nos. 1, 2, 3, 4, and 6, embracing the line of coast from the eastern extremity of Maine to Cape Hatteras, with the exception of that portion embraced between Cape Henlopen and Cape Charles.

The cost of maintaining the service during the last fiscal year, exclusive of the expenditure for the establishment of new stations, was $163,204 52.

It appears from the reports of the superintendents that during the season of 1874–'75, (from November 1, 1874, to November 1, 1875,) 82 vessels have been driven ashore within the limits of the operation of these stations, having on board 975 souls, and valued, with their cargoes, at $2,607,722. The life-saving apparatus was used at 44 wrecks, and 468 persons were actually brought ashore by it, while more or less assistance was rendered in most of the other cases. Of the property imperilled $1,756,475 in value was saved. Sixteen lives and $851,247 of property were lost. 726 days of shelter were afforded at the stations to 219 shipwrecked persons. Fourteen of the persons who perished were lost from the Italian bark "Giovanni," wrecked at Peaked Hill bar, Cape Cod, in the severest gale known to that coast for many years. This disaster is the first resulting in great loss of life which has occurred since the present system of conducting the service was established. A thorough investigation was directed to be made into the circumstances of the catastrophe, which proved that no fault attached to the service, but that the loss of life was wholly due to the fact that the persons upon the wreck were beyond the reach of any known means of assistance from shore. To extend the range of the means of establishing effective communication between the shore and stranded vessels in cases where life-boats are not available, so as to protect the few points upon our coasts where vessels are liable to strand beyond the reach of the means now in use, has been and still is an object of special endeavor.

Some of the most experienced officers connected with the service, aided by skilful officers detailed from the ordnance corps of the Army, and the best manufacturers of ordnance, are engaged upon the problem, and it is gratifying to state that their experiments give promise of success.

The following is a statement of disasters to vessels which have occurred within the field of the operations of the service since the adoption of the present system in 1871, and the results of these disasters. It should be observed that during the season of 1871–'72, the service was limited to the coasts of Long Island and New Jersey, and during the seasons of 1872–'74 to Cape Cod, Long Island, and New Jersey:

Total number of wrecks	185
Total number of lives imperilled	2,583
Total number of lives saved	2,564
Total number of lives lost	19
Total number of shipwrecked persons sheltered at the stations	368
Total number of days' shelter afforded	1,307
Total value of property imperilled	$6,293,658
Total value of property saved	$4,514,756
Total value of property lost	$1,742,902

Six of the stations authorized to be established between Cape Henlopen and Cape Charles have been erected during the past year, and are now occupied by crews. The remaining two are nearly completed.

The houses of refuge authorized for the Florida coast and the stations for the great lakes, except Lake Superior, are being built under contract, as are also those for Point Judith and Eaton's Neck, Long Island Sound.

Sites for the stations provided for the Pacific coast and Lake Superior have been selected, and proposals for their construction will be invited at an early day. Upon the completion of these stations it is believed that our coasts will be as well protected in this manner as the interests of commerce and humanity require, and due regard for economy will justify.

For more specific information relating to this service, reference is made to Appendix A of this report.

The statistics of disasters to American shipping, required by the act of Congress of June 20, 1874, to be collected through officers of the customs, arranged in tables convenient for examination, with explanatory notes, together with wreck charts showing the localities of disasters, will be found in Appendix B.

LIGHT-HOUSE SERVICE.

The light-house establishment, which is the largest in the world, and whose charge embraces ocean, lake, and river lines of unequalled extent, steadily increases in usefulness to commercial and maritime interests. During the past year it has established seventeen light-houses and two hundred and eighty beacon lights on the Western rivers, together with twenty-one buoys. The present number of aids to navigation in the United States is 622 light-houses, 23 light-ships, 45 fog-signals, 358 day-beacons, 280 river lights, and 2,880 buoys.

Since the date of the last report the Light-house Board, in view of the fact that mineral oil is coming into use in France and England for light-house illumination, has made, through its scientific members, extensive experiments in the mineral oils of this country in order to ascertain whether a suitable material of home production can be had for this purpose. The experiments, so far as prosecuted, induce the belief that a proper mineral oil can probably be obtained from our own manufacturers, and perhaps at considerably reduced expense. Its introduction involves an entire change in the lamps now used, and if this can be effected at a reasonable cost, it is proposed to put the oil on trial in a number of light-houses of the least importance, which is the course pursued in the European light-house establishments, when, if found satisfactory, it will be tried in the larger and more important ones.

An elaborate and extensive series of experiments has also been made in regard to sound, as applied to fog-signals, with results valuable to science and the promise of much practical utility to navigators.

The most signal work of the Establishment during the past year has been the commencement of the lighting and buoyage of the Mississippi, Missouri, and Ohio rivers, in conformity with the act of Congress approved June 23, 1874. The rivers have been divided into two light-house districts, with proper officers assigned to each. The means employed for lighting have been substantial lens-lanterns, which are placed with regard to the tortuous character of the stream, at intervals of rarely more than two miles distance. Mineral oil is used, and a bright light shown in the stormiest weather. The lights are attended by men, procured at a small compensation from among the residents on the rivers, who have generally proved trustworthy. At specially dangerous points buoys have been placed as day-marks. The narrow and crooked channels of these rivers, and the presence of hidden obstructions, make their navigation at many points extremely perilous, and the best pilots cannot always avert disaster. The work of light-

ing them is reported to give satisfaction to the extensive shipping interests of the interior, passage now being practicable at all times where it was before attended with difficulty and danger. To complete the work an additional number of lights and buoys will be needed, and the appropriation for maintaining them must necessarily be increased.

A light-ship for Winter Harbor Shoal, and one for general service, appropriated for by act of March 3, 1873, are nearly completed. They are noticeable as being the strongest and largest vessels ever built for the Establishment, and as having steam fog-signals, which will be of great service to mariners.

Estimates are presented by the Board for two new steam buoy-tenders for the Atlantic coast, to replace vessels which are worn out, too small and of too little power for the service required of them, and which are constantly in need of expensive repairs. An estimate is also presented for an additional steam-tender for the Pacific coast, the single one in use being insufficient for the service of that seaboard, and the frequent chartering, at high rates, of private vessels being consequently necessitated.

In its estimate for light-house supplies the Board includes a provision for the purchase of a small number of books for light-stations, especially those most remote, according to the usage of the French and English light-house establishments. A small quantity of reading matter at the light-stations, to be kept and accounted for as public property, might, it is suggested, form the nucleus for considerable donations from private sources; and the libraries so formed would conduce, as in other countries, toward making the light-keepers more contented with their isolated positions, and less disposed to absent themselves from the place of their duties, besides exerting a general good influence.

COAST SURVEY.

The report of the Superintendent of the Coast Survey shows that during the past year special activity was maintained in that work. In each of the seaboard States of the Atlantic and Pacific satisfactory progress is reported in shore-line surveys and extensions of coast topography; in additional determinations of latitude and longitude; and in researches relative to tides, currents, and the magnetic elements. The hydrography of the coast approaches has been advanced by means of the provision made by Congress for several steam-vessels. Among special records of the year are those brought by experienced astronomers in the service from stations to which they had been assigned, by government authority, to observe the late transit of Venus.

The inception of a systematic survey of the Atlantic, Gulf, and Pacific coasts of the United States, at a time when requirements for commerce and navigation were not as they now are, but largely prospective, has been fully justified by results which present striking proof of the forethought of those who projected the system. Within a single generation the results of the work are such that representative foreigners may compare, with their own, charts of all our chief and secondary harbors, unsurpassed in either precision or style. These local charts, however, represent only the most important areas in a geodetic survey, which has been prosecuted from the outset with the utmost care, and by the best methods. That the system for defining the approaches of our extensive coasts, wisely adopted originally, and sustained by Congress at the present time, is now recognized as yielding also a sure basis for the future action of States of the Union in regard to their final surveys and maps, affords additional evidence of the soundness of the policy that has marked successive administrations in our first century as a nation.

At certain localities along the seaboard, particularly about the ports, light-house sites, and coast defences, maps of great precision are requisite in public works. For ground of less importance, details are generalized in the representation. But the invisible sea bottom of the coast holds dangers so widely distributed, and so great, that no generalization is admissible. The interests of commerce and the safety of navigation alike require the exact development of all the unseen ground over which vessels may pass, and precise knowledge of each separate danger. Danger-marks, as of hidden rocks for example, insignificant though they may be in pictorial effect on maritime charts, are often found to be anything but insignificant, in the relation which they bear to other developments, as means for the safety of life and the preservation of property.

Information of much importance is obtained by the survey concerning features on land where of necessity stations are occupied. For the great undertaking now in progress, to increase the depth of water on one of the bars of the Mississippi, many details of the work rest on the accuracy of maps, charts, and computations resulting from a survey ordered by the last Congress. Tables, computed in the Coast Survey office, are now regularly issued in print, to show for a year in advance the hours of high and low water, and the height of tide in each of our seaports. The variation of the compass at places in the interior—which variation for extended periods of time is known

only by reference to observations recorded at points near the coast—is now a subject of frequent inquiry.

Within the present year information has been supplied from the archives of the survey bearing on unsettled boundaries between some of the older States, on the action of legislative committees in regard to natural and artificial resources in navigation, on decisions concerning questions in admiralty, on projects for defence, on sites for the construction of light-houses, and on plans for the preservation of harbor channels and anchorages.

All of which sufficiently manifests alike the national character of the work and the interest and importance attaching to its progressive and its ultimate results.

MARINE-HOSPITAL SERVICE.

As provided by the act of March 3, 1875, "to promote economy and efficiency in the marine-hospital service," a seamen's time-book has been issued, but it is yet too early to state definitely the effect of its introduction on the collection of hospital dues.

Hospital relief is now extended to certain seamen, who, previous to the passage of said act, were excluded from the benefits of the service. This service now furnishes care and treatment to foreign seamen, sick and destitute American seamen returned to the United States from foreign ports by United States consular officers, sick and disabled seamen belonging to vessels of the Engineer Corps of the Army, and to vessels of the Navy where no other provision has been made for them, and to seamen of the vessels of the Coast Survey and Light-house Service, while insane patients of the Marine-hospital Service are admitted to the Government Hospital for the Insane.

No considerable repairs have been made to the marine-hospital buildings for several years, and as none of the old hospitals can be so modified as to answer the requirements of the present state of knowledge concerning hospital construction, any large outlay on them is deemed unadvisable. Experience would seem to indicate that extensive and costly alterations and repairs require to be frequently renewed, and, therefore, the erection of comparatively inexpensive pavilion wards, in accordance with the most approved plans of recognized authorities on this subject, is deemed desirable.

The old marine-hospital building and grounds at Pittsburg, Pa., were sold during the year, under the act of June 22, 1874, for $37,167 79, and a new site purchased for $30,000. The erection of the new hospital at that place has not been commenced, however, owing to the fact that

the amount ($20,550 96) realized from the sale of a portion of the grounds in 1870, is not available for this purpose without the action of Congress.

The unusual amount of suffering and disease among seamen and sailors who were exposed to the severe cold of the last winter, caused a marked increase in the demand for relief from the marine-hospital fund, and a larger number of persons enjoyed the benefits of the service than in any previous year. Fifteen thousand and nine sick and disabled seamen were treated during the year, and the aggregate number of days' relief furnished is four hundred and five thousand six hundred and sixty-five. The total expenditure for the year was $404,390 60, and the amount of hospital dues collected $338,893 78.

STEAMBOAT-INSPECTION SERVICE.

The Supervising Inspector General of Steam-Vessels reports the following matters of interest connected with this service for the fiscal year ending June 30, 1875:

Number of officers employed in the service	103
Number of steam-vessels inspected during the year	3,885
Aggregate tonnage of steam-vessels inspected	1,018,151 $\frac{82}{100}$
Number of officers licensed	14,571

The number of lives lost by various accidents to steam-vessels is as follows:

By explosion or accidental escape of steam	51
By steamers burned	475
By collisions	17
By snagging, wreck, and founder	64
Total number of lives lost	607

Of this number four hundred and one were Chinese passengers, lost by the burning of the American steamship "Japan" on the coast of China, December 17, 1874, leaving the total of other losses during the year, but 206, which is an unusually small number.

The gross receipts from the inspection of steam-vessels and officers licensed are	$260,944 75
Disbursements in payment of salaries, travelling and incidental expenses of inspectors	212,392 02

This service is generally in a highly efficient and satisfactory condition, and it is believed that, under the operation of the laws for this purpose, a degree of safety to life on steam-vessels has been secured equal to all reasonable anticipation.

It is recommended that provision be made for the annual meeting of the Board of Supervising Inspectors in September of each year, at such place as the Secretary of the Treasury shall designate, instead of on the third Wednesday of January at the city of Washington, as now provided by section 4405, Revised Statutes.

THE REDEMPTION AGENCY FOR NATIONAL BANKS.

There have been redeemed, under the act of June 20, 1874, circulating notes of national banks amounting to $130,322,945. Of this amount, $15,213,500 were forwarded to the respective associations by which the notes were issued, and $115,109,445, unfit for use, delivered to the Comptroller of the Currency for destruction. The aggregate expense of this redemption was $290,965 37, each bank paying its share thereof in proportion to its circulating notes so redeemed.

At the commencement of the current fiscal year the division organized under the above act came, in accordance with the 3d section of the act of March 3, 1875, under the direction of the Secretary, having been, prior to that time, attached to the Treasurer's office, and no specific authority given the Secretary over its operations.

BUREAU OF ENGRAVING AND PRINTING.

In the report submitted by the Chief of this Bureau will be found a sketch of the history of this important branch of the service, with a statement in detail of its operations for the past fiscal year.

From this report it will be seen that the organization of the Bureau is such, as respects both its mechanical appliances and its methods of administration, as to meet all the requirements of the government. This Bureau is charged with functions closely affecting the public credit and the integrity of the national currency, and its management for many years has been most satisfactory, whether reference be had to its usefulness and efficiency or to the faithfulness of the officers directly in charge.

With the use of a special and distinctive paper, manufactured under the supervision of the Department, and the system of checks and counter-checks, enforcing the accountability of each officer and employé connected with the business of engraving and printing the public securities, it is believed that the highest practicable measure of security has been attained, and that the government is fully protected against unauthorized issues. Discrepancies rarely occur, and when they do

are readily and easily corrected. The Bureau is thoroughly equipped with all requisite machinery of improved patterns, and has a corps of skilled artisans whose engraved and mechanical work shows a high degree of excellence.

Pursuant to the direction of the act of the last Congress, the work of preparing United States and national-bank notes has been divided between the Bureau of Engraving and Printing and such responsible, capable, and experienced bank-note companies and engravers as would contract for the work at the lowest cost to the government, and at prices not greater than those theretofore paid for the same class of work.

PUBLIC BUILDINGS.

The condition of the public buildings under the charge of the Supervising Architect may be said to be generally satisfactory. The large amount of work imposed upon that officer renders it impracticable to proceed with the construction of all buildings authorized by law as rapidly as demanded by local communities in which they are respectively situated, and necessarily delays the beginning of some. The suggestion of the Supervising Architect, touching the desirability and expediency of causing plans for public buildings to be prepared by architects whose whole time is not required to be given to supervision of those already in process of construction, merits the attention and consideration of Congress.

It is desirable that all buildings constructed for public use should be of the most durable material, and conveniently adapted to the purposes for which they are designed. This can be best accomplished by bringing into requisition, by competitive means, the best architectural talent of the country.

It is, therefore, recommended that Congress make provision for carrying into effect the modification indicated by the Supervising Architect in this regard.

The Secretary repeats the suggestion of his last report, that the present is not a favorable time for making large appropriations for public buildings.

CLAIMS FOR PROCEEDS OF COTTON.

In the report of December last, reference was made to the action of the Department in the disposition of claims for the proceeds of cotton, under the provisions of the fifth section of the act of May 18, 1872.

The rule of decision therein stated has been strictly adhered to, and

all claims have been rejected which did not appear, from satisfactory evidence, to come within the plain letter of the statute.

The number of claims filed under this act was 1,336, which have been acted on as follows:

Allowed	39
Rejected	1,181
Dismissed for want of jurisdiction	96
Under examination	20

The amount paid out on the claims allowed, as aforesaid, is $180,358 43.

The claims now under examination will be disposed of in a short time. Upon their decision all proceedings under the act will be finally closed.

The following table contains a summary statement of the proceeds of captured and abandoned property covered into the treasury, and the amounts that have been awarded and paid therefrom under the several acts of Congress:

Proceeds of captured and abandoned property covered into the treasury		$20,910,656 44
Awarded to claimants by Court of Claims under the act of March 12, 1863	$11,348,247 73	
Paid to claimants by the Secretary of Treasury under the act of May 18, 1872	180,358 43	
Paid on judgments against treasury agents under the act of July 27, 1868	39,188 17	
Paid under various relief acts of Congress	228,250 81	
Disbursed for expenses under joint resolution of March 30, 1868	75,000 00	
Total		11,871,045 14
Which, deducted from the total amount received as above, leaves a balance of		9,039,611 30

CLAIMS AGAINST THE GOVERNMENT.

The state of the law relating to the examination and payment of certain classes of claims against the Government should receive the attention of Congress.

The Third Auditor and Second Comptroller, accounting officers of the Treasury Department, are required by law to adjudicate and settle claims upon the United States for the value of property lost or destroyed while in possession of the Government, either by contract or

impressment, and claims for stores received or taken and used by the Army. The power conferred upon these officers is an anomalous one. Before the year 1816 claims of this nature were presented directly to Congress, and, when found to be just and proper, were provided for by special legislation. By the act approved April 9, 1816, provision was made for payment to owners of property lost or destroyed in the war between the United States and Great Britain. Pursuant to this act, a commissioner was appointed by the President, with the advice and consent of the Senate, whose duty it was to decide all cases arising under the act, and upon his adjudication the amount found due the claimant was paid out of the Treasury. By an amendment to this act, made the next year, the commissioner was required to report the facts in each case to Congress, to the end that provision might be made for the relief of the claimant, and all cases in which the amount allowed exceeded two hundred dollars were required to be revised by the Secretary of War, and confirmed by him before payment.

By the act approved April 20, 1818, all claims under the act of 1816 and its amendment not acted on by the commissioner were transferred to the Third Auditor, who, in his adjudications, was to be governed by the rules prescribed for the commissioner. Again, in 1822 it was enacted that the accounting officer of the Treasury Department should audit and settle, without limitation, claims of officers, volunteers, and other persons in the campaign against the Seminole Indians, under rules to be prescribed by the President. When, however, in 1833, Congress passed a similar act for the settlement of claims for property lost in expeditions against the Indians on the frontier of Illinois and Michigan, the Third Auditor of the Treasury was required to examine, allow, and pay them, whatever the amount, as similar claims were required to be allowed and paid under the acts of 1816 and 1817.

But again, by the act of June 30, 1834, if a claim of this character exceeded two hundred dollars, instead of deciding the same, the Third Auditor was required to report the whole proof to Congress. By the subsequent acts of January 18, 1837, March 2, 1847, and March 3, 1849, all of which were enactments in relation to property lost or destroyed in the military service of the United States, the Third Auditor had the power to decide and pay, without revision, under rules prescribed by the Secretary of War, with the assent of the President, all claims, whatever the amount. By an amendment to the act of 1849, made July 28, 1866, the Third Auditor was required to transmit his adjustment to the Second Comptroller for his decision.

By the act of July 4, 1864, as amended by the acts of February 21,

1867, December 23, 1869, and March 3, 1871, and section 300 appendix to Revised Statutes, the jurisdiction of the Court of Claims was declared not to include any claim against the United States growing out of the destruction or appropriation of, or damage to, property by the Army or Navy engaged in the suppression of the rebellion, but claims of loyal citizens in States not in rebellion for quartermaster stores and subsistence received or taken for the use of the Army are to be reported to the Third Auditor by the Quartermaster General or Commissary General, with a recommendation for settlement.

While no uniform rule has been adopted in the settlement of these claims, it is not easy to perceive the reasons which induced Congress to depart from that first established in the act of 1816. But, whatever may have been the reason, experience has shown that the accounting officers of the Treasury are not the proper persons to have the duty of passing upon such claims. In almost every case these settlements require an investigation which properly belongs to a court of law. In practice, this investigation is often not made either by the Third Auditor or Second Comptroller, but is necessarily intrusted to subordinates not accustomed to consider and weigh evidence. Thus great injustice is done the Government by the allowance of claims upon evidence taken *ex parte*, which would not be admissible in a court of law organized for the ascertainment of truth.

The act of March 30, 1868, reproduced in section 191, Revised Statutes, makes it at least doubtful whether the Secretary of the Treasury has power to prevent this evil, unless he should take upon himself the questionable responsibility of refusing to sign warrants for the payment of adjudicated claims.

Claims against the Government have been permitted to sleep until the officers connected with the transactions out of which they arose have died, or gone out of service, and then been revived and supported by *ex parte* testimony of such character as to cause their allowance by the accounting officers.

As a partial remedy for the evil, it is recommended that all such claims be barred if not presented within a specified time. There is, practically, no limitation now. It will be seen that the act of 1816 barred claims not presented within two years. Perhaps this period is too short. Six years is adopted in the legislation of most of the States as the time in which actions on simple contracts are barred. Claims against the Government should not be valid for a longer time than this, and there are strong reasons for requiring them to be presented in a shorter time. But a better and more effectual remedy for the

evil would be the enactment of a law requiring all such claims to be presented in the United States circuit courts of the districts where they arise, by proceedings in the nature of suits against the United States, under such limitations and restrictions, both as to the right to institute the suit and as to the mode of procedure, as Congress may see proper to impose.

It may be said that such a course would be at variance with the idea that the sovereign should not be subject to suit. The United States, as a sovereign power, however, has practically subjected itself to suit by the legislation already cited, as well as by the establishment of the Court of Claims. The theory of exemption from suit has been long since abandoned in England by the allowance of the petition of right in any one of the superior courts of common law or equity at Westminster. Besides, no just government can now afford to withhold from its citizens the right to present and prosecute their proper demands upon it in some form or other; and it is better both for the government and the honest claimant that the claim should be passed upon by a competent tribunal, armed with power to ascertain the truth and to prevent fraud. The advantage to the government of such a course is manifest. Claims, instead of being paid on partial and *ex parte* testimony, would be subjected to thorough examination by a court and jury, and the interests of the government would be protected by its attorneys.

The highest test of the credibility of a witness consists in cross-examination by opposing counsel in the presence of the tribunal which is to weigh the evidence.

Experience has shown that, as a rule, no claim subjected to the scrutiny of a court in the vicinity where it arises is likely to be sustained if it is unfounded in fact, while, on the contrary, such claims are often carried through the Department without attracting the attention of those who either know them to be false or have the means of proving them to be so, and not until they are made public, after payment, is the evidence of their fraudulent character produced. It has happened that claims have been passed by the accounting officers, which were subsequently ascertained to be fraudulent and fictitious, and the government has felt called upon to proceed by civil action to recover the money, and to institute criminal prosecutions against parties engaged in the fraud.

In England, by an act passed in 1860, to amend the petition of right against the government, it is provided that, so far as applicable, the course of procedure in the trial of suits between subject and subject should be extended thereto.

Trial in the vicinage is no less important to the government than to the honest claimant. Requiring a citizen from a distant part of the Union to come to Washington and bring his proofs with him to try his claim against the government, often operates oppressively on him, and is without corresponding benefit to the government. It is difficult to perceive why such a case should not be tried in the vicinity where it arises, and where, as has been before said, if tried with the publicity attending a jury trial, with the witnesses present to undergo cross-examination, the establishment of false and fraudulent claims would certainly be rendered more difficult. The government would be placed at no disadvantage by the remoteness of the place of trial from the departments where the public records are kept, for the statute already makes certified copies of such records competent evidence, and they could as well be sent to distant parts of the country as to the court sitting in Washington City. In rare and exceptional cases, the production of original records may be required, but these could be sent in charge of a proper custodian.

REPORTS OF BUREAU OFFICERS.

The reports of the heads of bureaus are herewith transmitted, and referred to as containing statements and information of the business of the Department more in detail than could properly be embodied in this report. The Secretary gratefully acknowledges his indebtedness to the officers of the Department generally for the zeal and fidelity with which they have discharged their duties.

B. H. BRISTOW,
Secretary of the Treasury.

To the Honorable
THE SPEAKER OF THE HOUSE OF REPRESENTATIVES.

TABLES ACCOMPANYING THE REPORT.

TABLE A.—*Statement of the net receipts (by warrants) during the fiscal year ended June 30, 1875.*

CUSTOMS.		
Quarter ended September 30, 1874	$46,651,200 10	
Quarter ended December 31, 1874	32,187,238 95	
Quarter ended March 31, 1875	41,910,667 53	
Quarter ended June 30, 1875	36,418,615 77	
		$157,167,722 35
SALES OF PUBLIC LANDS.		
Quarter ended September 30, 1874	391,465 88	
Quarter ended December 31, 1874	413,528 02	
Quarter ended March 31, 1875	272,438 94	
Quarter ended June 30, 1875	336,207 33	
		1,413,640 17
INTERNAL REVENUE.		
Quarter ended September 30, 1874	26,314,615 33	
Quarter ended December 31, 1874	27,248,051 62	
Quarter ended March 31, 1875	28,739,763 25	
Quarter ended June 30, 1875	27,705,063 38	
		110,007,493 58
TAX ON CIRCULATION, DEPOSITS, ETC., OF NATIONAL BANKS.		
Quarter ended September 30, 1874	3,596,148 23	
Quarter ended December 31, 1874	21,639 04	
Quarter ended March 31, 1875	3,623,614 69	
Quarter ended June 30, 1875	26,977 20	
		7,268,379 16
RE-PAYMENT OF INTEREST BY PACIFIC RAILWAY COMPANIES.		
Quarter ended September 30, 1874	217,941 97	
Quarter ended December 31, 1874	131,859 77	
Quarter ended March 31, 1875	341,909 92	
Quarter ended June 30, 1875	190,563 25	
		882,274 91
CUSTOMS FINES, PENALTIES, AND FORFEITURES.		
Quarter ended September 30, 1874	30,540 31	
Quarter ended December 31, 1874	45,293 55	
Quarter ended March 31, 1875	50,098 61	
Quarter ended June 30, 1875	102,937 76	
		228,870 23
FEES—CONSULAR, LETTERS-PATENT, AND LAND.		
Quarter ended September 30, 1874	451,257 11	
Quarter ended December 31, 1874	409,698 97	
Quarter ended March 31, 1875	433,779 41	
Quarter ended June 30, 1875	524,148 80	
		1,818,884 29
PROCEEDS OF SALES OF GOVERNMENT PROPERTY.		
Quarter ended September 30, 1874	522,546 77	
Quarter ended December 31, 1874	417,140 85	
Quarter ended March 31, 1875	226,603 45	
Quarter ended June 30, 1875	112,402 80	
		1,278,693 87
PREMIUM ON SALES OF COIN.		
Quarter ended September 30, 1874	1,453,237 72	
Quarter ended December 31, 1874	816,928 23	
Quarter ended March 31, 1875	290,119 12	
Quarter ended June 30, 1875	1,418,994 63	
		3,979,279 69
MISCELLANEOUS SOURCES.		
Quarter ended September 30, 1874	1,955,332 57	
Quarter ended December 31, 1874	870,398 13	
Quarter ended March 31, 1875	709,751 44	
Quarter ended June 30, 1875	1,119,390 71	
		3,954,812 85
Total net receipts		288,000,051 10
Balance in Treasury June 30, 1874		150,731,694 63
Total		438,731,745 73

TABLE B.—*Statement of the net disbursements (by warrants) during the fiscal year ended June 30, 1875.*

CIVIL.

Congress	$5,084,612 47	
Executive	6,948,217 74	
Judiciary	3,713,184 67	
Government of Territories	247,194 53	
Subtreasuries	385,220 20	
Public-land offices	611,879 99	
Inspection of steam-vessels	212,392 02	
Mints and assay-offices	164,228 01	
Total civil list		$17,346,929 53

FOREIGN INTERCOURSE.

Diplomatic salaries	319,379 68	
Consular salaries	462,801 43	
Contingencies of consulates	159,518 98	
Relief and protection of American seamen	35,099 21	
Rescuing American seamen from shipwreck	1,896 56	
American and Mexican claims commission	20,363 06	
American and Spanish claims commission	14,021 51	
American and British claims commission	2,493 25	
Return of consular receipts	32,225 02	
International Exposition at Vienna	6,179 06	
Survey of boundary between the United States and British possessions	39,865 00	
Alabama claims commission	84,374 70	
Awards to British claimants	1,999,819 00	
Contingent and miscellaneous	87,547 17	
Total foreign intercourse		3,195,287 23

MISCELLANEOUS.

Mint establishment	1,244,618 40
Branch mint building	145,780 93
Coast Survey	780,635 44
Light-House Establishment	1,778,841 52
Building and repairs of light-houses	1,165,198 72
Refunding excess of deposits for unascertained duties	1,863,657 85
Payment for coins, nickels, &c., destroyed at Chicago	809 04
Revenue-cutter service	897,985 85
Building revenue-cutters	88,107 81
Life-saving service, (including building new stations)	203,113 32
Custom-houses, court-houses, post-offices, &c	8,055,054 86
Furniture, fuel, &c., for public buildings under Treasury Department	448,169 78
Repairs and preservation of public buildings under the Treasury Dept	382,229 21
Collecting customs-revenue	7,028,521 80
Debenture and drawbacks under customs laws	1,629,328 02
Refunding duties erroneously or illegally collected	9,810 93
Marine hospital at San Francisco	68,087 74
Marine-Hospital Establishment	404,390 60
Compensation in lieu of moieties	67,134 18
Assessing and collecting internal revenue	4,229,442 71
Punishing violations of internal revenue laws	30,085 00
Internal-revenue stamps, paper, and dies	627,649 97
Refunding duties erroneously or illegally collected	169,296 77
Internal-revenue allowances and drawbacks	32,248 73
Redemption of internal-revenue stamps	31,267 05
Mail-steamship service	650,000 00
Deficiencies in revenue of Post-Office Department	6,502,216 30
Return of proceeds of captured and abandoned property	890,619 34
Expenses national loan, including salaries	552,397 87
Expenses refunding national debt	150,255 51
Expenses national currency	330,978 27
Suppressing counterfeiting and fraud	129,615 20
Contingent expenses, independent treasury	95,159 57
Public buildings and grounds in Washington	809,176 43
Capitol extension, repairs, &c	69,800 00
Extension and grading of Capitol grounds	220,000 00
State, War, and Navy Department building	1,049,059 54
Columbian Institute for Deaf and Dumb	77,090 00
Government Hospital for the Insane	215,107 00
Charitable institutions in Washington	229,808 33
Metropolitan police	208,006 62
Support and treatment of transient paupers	15,000 00
Survey of public lands	1,253,187 13
Repayments for lands erroneously sold	35,036 85
Five per cent. fund, &c., to States	91,436 52
Expenses of the eighth and ninth censuses	23,569 40
Penitentiaries in Territories	14,791 13
Payments under relief acts	157,813 59
Expenses of board of health of District of Columbia	41,383 50
Inquiries into causes of steam-boiler explosions	8,474 01
Refunding proceeds of cotton seized	36,938 72
Southern claims commission	51,800 00

TABLE B.—*Statement of the net disbursements, (by warrants,) &c.*—Continued.

MISCELLANEOUS—Continued.

Redeeming of national currency	$64,244 76	
Postage	1,022,165 13	
Expenses of District of Columbia	339,593 96	
Interest on 3.65 bonds of District of Columbia	154,554 64	
Payment of indebtedness of District of Columbia	1,300,000 00	
Expenses of Bureau of Engraving and Printing	1,581,669 41	
Purchase and management of Louisville and Portland Canal	107,794 31	
Vaults, safes, and locks for public buildings	103,457 95	
Smithsonian Institution	69,050 88	
Indemnity for swamp-lands	43,386 94	
International exhibition	26,300 00	
Indemnity to Dempsey & O'Toole	20,433 89	
Distribution of seeds, (grasshopper ravages)	30,000 00	
Agricultural reports	40,700 00	
Miscellaneous items	215,892 49	
Total miscellaneous		$50,528,536 22

INTERIOR DEPARTMENT.

Indians	8,384,656 82	
Pensions	29,456,216 92	
Total Interior Department		37,840,873 04

MILITARY ESTABLISHMENT.

Pay Department	10,944,666 31	
Commissary Department	2,851,334 74	
Quartermaster's Department	13,253,571 74	
Ordnance Department	1,758,965 26	
Medical Department	344,887 94	
Military Academy	99,401 79	
Expenses of recruiting	50,269 88	
Contingencies	35,557 59	
Signal Service	422,641 58	
Refugees, Freedmen and Abandoned Lands	34,317 36	
Bounties to soldiers	291,480 00	
Reimbursing States for raising volunteers	139,958 32	
Claims of loyal citizens for supplies	1,265,170 40	
Payments under relief acts	377,831 46	
Forts and fortifications	1,128,980 31	
Improvements of rivers and harbors	6,380,811 18	
Reimbursing Kentucky for expenses in suppressing the rebellion	36,490 65	
Suppressing Indian hostilities in Montana and Dakota Territories	88,980 30	
Payment of stoppages due National Asylum for Disabled Volunteer Soldiers	911,505 12	
Washington and Oregon volunteers in 1855 and 1856	8,574 00	
Horses and other property lost in service	83,720 68	
Support of Soldiers' Home	154,604 01	
Miscellaneous	457,935 36	
Total Military Establishment		41,190,645 98

NAVAL ESTABLISHMENT.

Pay and contingent of the Navy	6,542,521 61	
Marine Corps	1,176,325 43	
Navigation	281,383 52	
Ordnance	504,744 91	
Provisions and Clothing	1,736,770 63	
Medicine and Surgery	133,175 52	
Equipment and Recruiting	1,175,252 09	
Construction and Repairs	4,339,412 00	
Steam-Engineering	1,812,043 55	
Yards and Docks	2,519,755 20	
Payments under relief acts	140,278 97	
Observation of the transit of Venus	70,964 43	
Prize money to captors	842,582 22	
Miscellaneous	218,416 19	
Total Naval Establishment		21,497,026 27

INTEREST ON THE PUBLIC DEBT	103,093,544 57
Total net ordinary disbursements	274,029,392 84
Redemption of the public debt	19,405,936 48
Total net disbursements	294,029,329 32
Balance in Treasury June 30, 1875	144,702,416 41
Total	438,731,745 73

TABLE C.—*Statement of the redemption and issue of loans and Treasury-notes (by warrants) for the fiscal year ended June 30, 1875.*

Character of loans.	Redemptions.	Issues.	Excess of redemptions.	Excess of issues.
Texan indemnity stock, act of September 9, 1850	$2,000 00		$2,000 00	
Treasury-notes of 1857, act of December 23, 1857	100 00		100 00	
Loan of 1858, act of June 14, 1858	117,000 00		117,000 00	
Seven-thirties of 1861, act of July 17, 1861	2,100 00		2,100 00	
Old demand notes, acts of July 17, 1861, August 5, 1861, and February 12, 1862	6,625 00		6,625 00	
Legal-tender notes, acts of February 25, 1862, July 11, 1862, January 17, 1863, and March 3, 1863	110,136,376 00	$103,907,956 00	6,228,420 00	
Temporary loan, act of February 25, 1862	75,500 00		75,500 00	
Fractional currency, acts of July 17, 1862, March 3, 1863, and June 30, 1864	40,364,671 48	36,612,800 00	3,751,871 48	
One-year notes of 1863, act of March 3, 1863	8,700 00		8,700 00	
Two-year notes of 1863, act of March 3, 1863	5,550 00		5,550 00	
Coin certificates, act of March 3, 1863, section 5	71,278,900 00	70,250,100 00	1,028,800 00	
Compound-interest notes, acts of March 3, 1863, and June 30, 1864	47,820 00		47,820 00	
Ten-forties of 1864, act of March 3, 1864	1,000 00		1,000 00	
Seven-thirties of 1864 and 1865, acts of June 30, 1864, and March 3, 1865	31,650 00		31,650 00	
Five-twenties of 1862, act of February 25, 1862	104,257,850 00		104,257,850 00	
Consols of 1867, act of March 3, 1865	1,650 00		1,650 00	
Funded loan of 1881, acts of July 14, 1870, and January 20, 1871		96,505,700 00		$96,505,700 00
Certificates of deposit, act of June 8, 1872	81,040,000 00	80,695,000 00	345,000 00	
Total	407,377,492 48	387,971,556 00	115,911,636 48	96,505,700 00
Excess of redemptions			115,911,636 48	
Excess of issues			96,505,700 00	
Net excess of redemptions charged in receipts and expenditures			19,405,936 48	

TABLE D.—*Statement of the net receipts and disbursements (by warrants) for the quarter ended September 30, 1875.*

RECEIPTS.

Customs	$44,233,626 25
Sales of public lands	308,641 73
Internal revenue	23,199,723 50
Tax on circulation, deposits, &c., of national banks	3,026,033 83
Repayment of interest by Pacific railway companies	202,212 87
Customs fines, penalties, and forfeitures	28,521 75
Consular, letters-patent, homestead, and land fees	510,427 19
Proceeds of sales of Government property	104,273 65
Miscellaneous	1,722,408 90
Premium on sales of coin	2,160,275 47
Total net ordinary receipts	81,156,145 14
Balance in Treasury June 30, 1875	144,702,416 41
Total	225,858,561 55

DISBURSEMENTS.

Customs	$6,267,985 95
Internal revenue	1,565,409 75
Diplomatic service	437,755 97
Judiciary	763,567 48
Interior, (civil)	1,318,467 48
Treasury proper	8,175,489 68
Quarterly salaries	144,396 37
Total civil and miscellaneous	18,673,072 68

TABLE D.—*Statement of the net receipts and disbursements, &c.*—Continued.

DISBURSEMENTS—Continued.

Indians	$2,660,474 38	
Pensions	8,845,927 64	
Military establishment	11,391,476 26	
Naval establishment	7,959,037 99	
Interest on public debt	34,517,554 81	
		$65,374,471 08
Total net ordinary disbursements		84,047,543 76
Redemption of the public debt		6,838,999 66
Balance in the Treasury September 30, 1875		134,972,018 13
Total		225,858,561 55

TABLE E.—*Statement of the redemption and issue of loans and Treasury-notes (by warrants) for the quarter ended September* 30, 1875.

Character of loans.	Redemptions.	Issues.	Excess of redemptions.	Excess of issues.
Seven-thirties of 1861	$50 00		$50 00	
Old demand-notes	275 00		275 00	
Legal-tender notes	22,717,020 00	$20,886,564 00	1,830,456 00	
Fractional currency	9,132,648 66	7,786,800 00	1,345,848 66	
One-year notes of 1863	1,230 00		1,230 00	
Two-year notes of 1863	550 00		550 00	
Coin certificates	48,379,000 00	38,227,900 00	10,151,100 00	
Compound-interest notes	10,990 00		10,990 00	
Seven-thirties of 1864 and 1865	4,900 00		4,900 00	
Five-twenties of 1862	20,605,150 00		20,605,150 00	
Funded loan of 1881		25,650,000 00		$25,650,000 00
Certificates of deposit	19,195,000 00	21,440,000 00		2,245,000 00
Certificates of indebtedness of 1870	567,000 00		567,000 00	
Five-twenties of June, 1864	216,450 00		216,450 00	
Total	120,830,263 66	113,991,264 00	34,733,999 66	27,895,000 00
Excess of redemptions			34,733,999 66	
Excess of issues			27,895,000 00	
Net excess of redemptions			6,838,999 66	

TABLE F.—*Statement of outstanding principal of the public debt of the United States on the 1st of January of each year from* 1791 *to* 1843, *inclusive, and on the* 1st *of July of each year from* 1844 *to* 1875, *inclusive.*

Year.	Amount.
1791	$75,463,476 52
1792	77,227,924 66
1793	80,352,634 04
1794	78,427,404 77
1795	80,747,587 39
1796	83,762,172 07
1797	82,064,479 33
1798	79,228,529 12
1799	78,408,669 77
1800	82,976,294 35
1801	83,038,050 80
1802	80,712,632 25
1803	77,054,686 30
1804	86,427,120 88
1805	82,312,150 50
1806	75,723,270 66
1807	69,218,398 64
1808	65,196,317 97
1809	57,023,192 09
1810	53,173,217 52
1811	48,005,587 76
1812	45,209,737 90
1813	55,962,827 57
1814	81,487,846 24
1815	99,833,660 15
1816	127,334,933 74
1817	123,491,965 16
1818	103,466,633 83
1819	95,529,648 28
1820	91,015,566 15
1821	89,987,427 66
1822	93,546,676 98
1823	90,875,877 28
1824	90,269,777 77
1825	83,788,432 71
1826	81,054,059 99
1827	73,987,357 20
1828	67,475,043 87
1829	58,421,413 67
1830	48,565,406 50
1831	39,123,191 68
1832	24,322,235 18
1833	7,001,698 83
1834	4,760,082 03
1835	37,513 05
1836	336,957 83
1837	3,308,124 07
1838	10,434,221 14
1839	3,573,343 82
1840	5,250,875 54
1841	13,594,480 73
1842	20,601,226 28
1843	32,742,922 00
1844	23,461,652 50
1845	15,925,303 01
1846	15,550,202 97
1847	38,826,534 77
1848	47,044,862 23
1849	63,061,858 69
1850	63,452,773 55
1851	68,304,796 02
1852	66,199,341 71
1853	59,803,117 70
1854	42,242,222 42
1855	35,586,956 56
1856	31,972,537 90
1857	28,699,831 85
1858	44,911,881 03
1859	58,496,837 84
1860	64,842,287 88
1861	90,580,873 72
1862	524,176,412 13
1863	1,119,772,138 63
1864	1,815,784,370 57
1865	2,680,647,869 74
1866	2,773,236,173 69
1867	2,678,126,103 87
1868	2,611,687,851 19
1869	2,588,452,213 94

TABLE F.—*Statement of outstanding principal of the public debt, &c.*—Continued.

Year.	Amount.
1870	$2, 480, 672, 427 81
1871	2, 353, 211, 332 32
1872	2, 253, 251, 328 78
1873	*2, 234, 482, 993 20
1874	*2, 251, 690, 468 43
1875	*2, 232, 284, 531 95

* In the amount here stated as the outstanding principal of the public debt are included the certificates of deposit outstanding on the 30th of June, issued under act of June 8, 1872, amounting to $31,730,000, in 1873; $58,760,000 in 1874, and $58,415,000 in 1875, for which a like amount in United States notes was on special deposit in the Treasury for their redemption, and added to the cash-balance in the Treasury. These certificates, as a matter of accounts, are treated as a part of the public debt, but, being offset by notes held on deposit for their redemption, should properly be deducted from the principal of the public debt in making comparison with former years.

TABLE G.—*Statement of the receipts of the United States from March 4, 1789, to June*

Year	Balance in the Treasury at commencement of year.	Customs.	Internal revenue.	Direct tax.	Public lands.	Miscellaneous.
1791	.....	$4,399,473 09	.....	.....	.....	$10,478 10
1792	$973,905 75	3,443,070 85	$208,942 81	.....	.....	9,918 65
1793	783,444 51	4,255,306 56	337,705 70	.....	.....	21,410 88
1794	753,661 69	4,801,065 28	274,089 62	.....	.....	53,277 97
1795	1,151,924 17	5,588,461 26	337,755 36	.....	.....	28,317 97
1796	516,442 61	6,567,987 94	475,289 60	.....	$4,836 13	1,169,415 98
1797	888,995 42	7,549,649 65	575,491 45	.....	83,540 60	399,139 29
1798	1,021,890 04	7,106,061 93	644,357 95	.....	11,963 11	58,192 81
1799	617,451 43	6,610,449 31	779,136 44	.....	.....	86,187 56
1800	2,161,867 77	9,080,932 73	809,396 55	$734,223 97	443 75	152,712 10
1801	2,623,311 99	10,750,778 93	1,048,033 43	534,343 38	167,726 06	345,649 15
1802	3,295,391 00	12,438,235 74	621,898 89	206,565 44	188,628 02	1,500,505 86
1803	5,020,897 64	10,479,417 61	215,179 69	71,879 20	165,675 69	131,945 44
1804	4,825,811 60	11,098,565 33	50,941 29	50,198 44	487,526 79	139,075 53
1805	4,037,005 26	12,936,487 04	21,747 15	21,892 91	540,193 80	40,382 30
1806	3,999,388 99	14,667,698 17	20,101 45	55,763 86	765,245 73	51,121 86
1807	4,538,123 80	15,845,521 61	13,051 40	34,732 56	466,163 27	38,550 42
1808	9,643,850 07	16,363,550 58	8,190 23	19,159 21	647,939 06	21,822 85
1809	9,941,809 96	7,257,506 62	4,034 29	7,517 31	442,259 33	62,162 57
1810	3,648,056 78	8,583,309 31	7,430 63	12,448 68	696,548 82	84,476 84
1811	2,672,276 57	13,313,222 73	2,295 95	7,666 66	1,040,237 53	59,211 22
1812	3,502,305 80	8,958,777 53	4,903 06	859 22	710,427 78	126,165 17
1813	3,862,217 41	13,224,623 25	4,755 04	3,805 52	835,655 14	271,571 09
1814	5,196,542 00	5,998,772 08	1,662,984 82	2,219,497 36	1,135,971 09	164,399 81
1815	1,727,848 63	7,282,942 22	4,678,059 07	2,162,673 41	1,287,959 28	285,282 84
1816	13,106,592 88	36,306,874 88	5,124,708 31	4,253,635 09	1,717,985 03	273,782 35
1817	22,033,519 19	26,283,348 49	2,678,100 77	1,834,187 04	1,991,226 06	109,761 08
1818	14,989,465 48	17,176,385 00	955,270 20	264,333 36	2,606,564 77	57,617 71
1819	1,478,526 74	20,283,608 76	229,593 63	83,650 78	3,274,422 78	57,098 42
1820	2,079,992 38	15,005,612 15	106,960 53	31,586 82	1,635,871 61	61,338 44
1821	1,198,461 21	13,004,447 15	69,027 63	29,349 05	1,212,906 46	152,589 43
1822	1,681,592 24	17,589,761 94	67,665 71	20,961 56	1,803,581 54	452,957 19
1823	4,237,427 55	19,088,433 44	34,242 17	10,337 71	916,523 10	141,129 84
1824	9,463,922 81	17,878,325 71	34,663 37	6,201 96	984,418 15	127,603 60
1825	1,946,597 13	20,098,713 45	25,771 35	2,330 85	1,216,090 56	130,451 81
1826	5,201,650 43	23,341,331 77	21,589 93	6,618 76	1,393,785 09	94,588 66
1827	6,358,686 18	19,712,283 29	19,885 68	2,626 90	1,495,845 26	1,315,722 83
1828	6,668,286 10	23,205,523 64	17,451 54	2,218 81	1,018,308 75	65,126 49
1829	5,972,435 81	22,681,965 91	14,502 74	11,335 05	1,517,175 13	112,648 55
1830	5,755,704 79	21,922,391 39	12,160 62	16,980 59	2,329,356 14	73,227 77
1831	6,014,539 75	24,224,441 77	6,933 51	10,506 01	3,210,815 48	584,124 05
1832	4,502,914 45	28,465,237 24	11,630 65	6,791 13	2,623,381 03	270,410 61
1833	2,011,777 55	29,032,508 91	2,759 00	394 12	3,967,682 55	470,096 67
1834	11,702,905 31	16,214,957 15	4,196 09	19 80	4,857,600 69	480,812 32
1835	8,892,858 42	19,391,310 59	10,459 48	4,263 33	14,757,600 75	759,972 13
1836	26,749,803 96	23,409,940 53	370 00	728 79	24,877,179 86	2,245,902 23
1837	46,708,436 00	11,169,290 39	5,493 84	1,687 70	6,776,236 52	7,001,444 59
1838	37,327,252 69	16,158,800 36	2,467 27	.....	3,730,945 66	6,410,348 45
1839	36,891,196 94	23,137,924 81	2,053 32	755 22	7,361,576 40	979,939 86
1840	33,157,503 68	13,499,502 17	1,682 25	.....	3,411,818 63	2,567,119 28
1841	29,963,163 46	14,487,216 74	3,261 36	.....	1,365,627 42	1,004,054 75
1842	28,685,111 08	18,187,908 76	495 00	.....	1,335,797 52	451,995 97
1843*	30,521,979 44	7,046,843 91	103 25	.....	898,158 18	285,895 92
1844	39,186,284 74	26,183,570 94	1,777 34	.....	2,059,939 80	1,075,419 70
1845	36,742,820 62	27,528,112 70	3,517 12	.....	2,077,022 30	361,453 68
1846	36,194,274 81	26,712,667 87	2,897 26	.....	2,694,452 48	229,950 13
1847	38,261,959 65	23,747,864 66	375 00	.....	2,498,355 20	220,808 30
1848	33,079,276 43	31,757,070 96	375 00	.....	3,328,642 56	612,610 69
1849	29,416,612 45	28,346,738 82	.....	.....	1,688,959 55	685,379 13
1850	32,827,082 69	39,668,686 42	.....	.....	1,859,894 25	2,064,308 21
1851	35,871,753 31	49,017,567 92	.....	.....	2,352,305 30	1,185,166 11
1852	40,158,353 25	47,339,326 62	.....	.....	2,043,239 58	464,249 40
1853	43,338,860 02	58,931,865 52	.....	.....	1,667,084 99	988,081 17
1854	50,261,901 09	64,224,190 27	.....	.....	8,470,798 39	1,105,352 74
1855	48,591,073 41	53,025,794 21	.....	.....	11,497,049 07	827,731 40
1856	47,777,672 13	64,022,863 50	.....	.....	8,917,644 93	1,116,190 81
1857	49,108,229 80	63,875,905 05	.....	.....	3,829,486 64	1,259,930 88
1858	46,802,855 00	41,789,620 96	.....	.....	3,513,715 87	1,352,029 13
1859	35,113,334 22	49,565,824 38	.....	.....	1,756,687 30	1,454,596 24
1860	33,193,248 60	53,187,511 87	.....	.....	1,778,557 71	1,088,530 25
1861	32,979,530 78	39,582,125 64	.....	.....	870,658 54	1,028,545 31
1862	30,963,857 83	49,056,397 62	.....	1,795,331 73	152,204 77	915,307 97
1863	46,965,304 87	69,059,643 40	37,640,787 95	1,485,103 61	167,617 17	3,741,794 38
1864	36,593,046 13	102,316,152 99	109,741,134 10	475,648 96	588,533 29	80,201,701 86
1865	134,433,738 44	84,928,260 60	209,464,215 25	1,200,573 03	996,553 31	25,441,556 00

* For the half-year from Jan

30, 1875, *by calendar years to* 1843, *and by fiscal years* (*ending June* 30) *from that time.*

Year.	Dividends.	Net ordinary receipts.	Interest.	Premiums.	Receipts from loans and Treasury-notes.	Gross receipts.	Unavailable.
1791	.....	$4, 409, 951 19	.....	.....	$361, 391 34	4, 771, 342 53	.....
1792	$8, 028 00	3, 669, 960 31	.....	.....	5, 102, 498 45	8, 772, 458 76	.....
1793	38, 500 00	4, 652, 923 14	.....	.....	1, 797, 272 01	6, 450, 195 15	.....
1794	303, 472 00	5, 431, 904 87	.....	.....	4, 007, 950 78	9, 439, 855 65	.....
1795	160, 000 00	6, 114, 534 59	$4, 800 00	.....	3, 396, 424 00	9, 515, 758 59	.....
1796	160, 000 00	8, 377, 529 65	42, 800 00	.....	320, 000 00	8, 740, 329 65	.....
1797	80, 960 00	8, 688, 780 99	.....	.....	70, 000 00	8, 758, 780 99	.....
1798	79, 920 00	7, 900, 495 80	78, 675 00	.....	200, 000 00	8, 179, 170 80	.....
1799	71, 040 00	7, 546, 813 31	.....	.....	5, 000, 000 00	12, 546, 813 31	.....
1800	71, 040 00	10, 848, 749 10	.....	.....	1, 565, 229 24	12, 413, 978 34	.....
1801	88, 800 00	12, 935, 330 95	10, 125 00	.....	.....	12, 945, 455 95	.....
1802	39, 960 00	14, 995, 793 95	.....	.....	.....	14, 995, 793 95	.....
1803	.....	11, 064, 097 63	.....	.....	.....	11, 064, 097 63	.....
1804	.....	11, 826, 307 38	.....	.....	.....	11, 826, 307 38	.....
1805	.....	13, 560, 693 20	.....	.....	.....	13, 560, 693 20	.....
1806	.....	15, 559, 931 07	.....	.....	.....	15, 559, 931 07	.....
1807	.....	16, 398, 019 26	.....	.....	.....	16, 398, 019 26	.....
1808	.....	17, 060, 661 93	.....	.....	.....	17, 060, 661 93	.....
1809	.....	7, 773, 473 12	.....	.....	.....	7, 773, 473 12	.....
1810	.....	9, 384, 214 28	.....	.....	2, 750, 000 00	12, 134, 214 28	.....
1811	.....	14, 422, 634 09	.....	.....	.....	14, 422, 634 09	.....
1812	.....	9, 801, 132 76	.....	.....	12, 837, 900 00	22, 639, 032 76	.....
1813	.....	14, 340, 409 95	300 00	.....	26, 184, 135 00	40, 524, 844 95	.....
1814	.....	11, 181, 025 16	85 79	.....	23, 377, 826 00	34, 559, 536 95	.....
1815	.....	15, 696, 916 82	11, 541 74	$32, 107 64	35, 220, 671 40	50, 961, 237 60	.....
1816	.....	47, 676, 985 66	68, 665 16	686 09	9, 425, 084 91	57, 171, 421 82	.....
1817	202, 426 30	33, 099, 049 74	267, 819 14	.....	466, 723 45	33, 833, 592 33	.....
1818	525, 000 00	21, 585, 171 04	412 62	.....	8, 353 00	21, 593, 936 66	.....
1819	675, 000 00	24, 603, 364 37	.....	.....	2, 291 00	24, 605, 665 37	.....
1820	1, 000, 000 00	17, 840, 669 55	.....	40, 000 00	3, 000, 824 13	20, 881, 493 68	.....
1821	105, 000 00	14, 573, 379 72	.....	.....	5, 000, 324 00	19, 573, 703 72	.....
1822	297, 500 00	20, 232, 427 94	.....	.....	.....	20, 232, 427 94	.....
1823	350, 000 00	20, 540, 666 26	.....	.....	.....	20, 540, 666 26	.....
1824	350, 000 00	19, 381, 212 79	.....	.....	5, 000, 000 00	24, 381, 212 79	.....
1825	367, 500 00	21, 840, 858 02	.....	.....	5, 000, 000 00	26, 840, 858 02	.....
1826	402, 500 00	25, 260, 434 21	.....	.....	.....	25, 260, 434 21	.....
1827	420, 000 00	22, 966, 363 96	.....	.....	.....	22, 966, 363 96	.....
1828	455, 000 00	24, 763, 639 23	.....	.....	.....	24, 763, 639 23	.....
1829	490, 000 00	24, 827, 627 38	.....	.....	.....	24, 827, 627 38	.....
1830	490, 000 00	24, 844, 116 51	.....	.....	.....	24, 844, 116 51	.....
1831	490, 000 00	28, 526, 820 82	.....	.....	.....	28, 526, 820 82	.....
1832	490, 000 00	31, 867, 450 66	.....	.....	.....	31, 867, 450 66	$1, 889 50
1833	474, 985 00	33, 948, 426 25	.....	.....	.....	33, 948, 426 25	.....
1834	234, 349 50	21, 791, 935 55	.....	.....	.....	21, 791, 935 55	.....
1835	506, 480 82	35, 430, 087 10	.....	.....	.....	35, 430, 087 10	.....
1836	392, 674 67	50, 826, 796 08	.....	.....	.....	50, 826, 796 08	.....
1837	.....	24, 954, 153 04	.....	.....	2, 992, 989 15	27, 947, 142 19	63, 288 35
1838	.....	26, 302, 561 74	.....	.....	12, 716, 820 86	39, 019, 382 60	.....
1839	.....	31, 482, 749 61	.....	.....	3, 857, 276 21	35, 340, 025 82	1, 458, 782 93
1840	.....	19, 480, 115 33	.....	.....	5, 589, 547 51	25, 069, 662 84	37, 469 25
1841	.....	16, 860, 160 27	.....	.....	13, 659, 317 38	30, 519, 477 65	.....
1842	.....	19, 976, 197 25	.....	.....	14, 808, 735 64	34, 784, 932 89	11, 188 00
1843	.....	8, 231, 001 26	.....	71, 700 83	12, 479, 708 36	20, 782, 410 45	.....
1844	.....	29, 320, 707 78	.....	666 60	1, 877, 181 35	31, 198, 555 73	.....
1845	.....	29, 970, 105 80	.....	.....	.....	29, 970, 105 80	28, 251 90
1846	.....	29, 699, 967 74	.....	.....	.....	29, 699, 967 74	.....
1847	.....	26, 467, 403 16	.....	28, 365 91	28, 872, 399 45	55, 368, 168 52	30, 000 00
1848	.....	35, 692, 699 21	.....	37, 080 00	21, 256, 700 00	56, 992, 479 21	.....
1849	.....	30, 721, 077 50	.....	487, 065 48	28, 588, 750 00	59, 796, 892 98	.....
1850	.....	43, 592, 688 88	.....	10, 550 00	4, 045, 950 00	47, 649, 388 88	.....
1851	.....	52, 555, 039 33	.....	4, 264 92	203, 400 00	52, 762, 704 25	.....
1852	.....	49, 846, 815 60	.....	.....	46, 300 00	49, 893, 115 60	.....
1853	.....	61, 587, 031 68	.....	22 50	16, 350 00	61, 603, 404 18	103, 301 37
1854	.....	73, 800, 341 40	.....	.....	2, 001 67	73, 802, 343 07	.....
1855	.....	65, 350, 574 68	.....	.....	800 00	65, 351, 374 68	.....
1856	.....	74, 056, 699 24	.....	.....	200 00	74, 056, 899 24	.....
1857	.....	68, 965, 312 57	.....	.....	3, 900 00	68, 969, 212 57	.....
1858	.....	46, 655, 365 96	.....	.....	23, 717, 300 00	70, 372, 665 96	.....
1859	.....	52, 777, 107 92	.....	709, 357 72	28, 287, 500 00	81, 773, 965 64	15, 408 34
1860	.....	56, 054, 599 83	.....	10, 008 00	20, 776, 800 00	76, 841, 407 83	.....
1861	.....	41, 476, 299 49	.....	33, 630 90	41, 861, 709 74	83, 371, 640 13	.....
1862	.....	51, 919, 261 09	.....	68, 400 00	529, 692, 460 50	581, 680, 121 59	11, 110 81
1863	.....	112, 094, 945 51	.....	602, 345 44	776, 682, 361 57	889, 379, 652 52	6, 001 01
1864	.....	243, 412, 971 20	.....	21, 174, 101 01	1, 128, 873, 945 36	1, 393, 461, 017 57	9, 210 40
1865	.....	329, 031, 158 19	.....	11, 683, 446 89	1, 472, 224 740 85	1, 805, 939, 345 93	6, 095 11

ary 1, 1843, to June 30, 1843.

7 Ab

TABLE G.—*Statement of the receipts of the United States*

Year.	Balance in the Treasury at commencement of year.	Customs.	Internal revenue.	Direct tax.	Public lands.	Miscellaneous.
1866	$33, 933, 657 89	$179, 046, 651 58	$309, 226, 813 42	$1, 974, 754 12	$665, 031 03	$29, 036, 314 23
1867	160, 817, 099 73	176, 417, 810 88	266, 027, 537 43	4, 200, 233 70	1, 163, 575 76	15, 037, 522 15
1868	198, 076, 537 09	164, 464, 599 56	191, 087, 589 41	1, 788, 145 85	1, 318, 715 41	17, 745, 403 59
1869	158, 936, 082 87	180, 048, 426 63	158, 356, 460 86	765, 685 61	4, 020, 344 34	13, 997, 338 65
1870	183, 781, 985 76	194, 538, 374 44	184, 899, 756 49	229, 102 88	3, 350, 481 76	12, 942, 118 30
1871	177, 604, 116 51	206, 270, 408 05	143, 098, 153 63	580, 355 37	2, 388, 646 68	22, 093, 541 21
1872	138, 019, 122 15	216, 370, 286 77	130, 642, 177 72	.....	2, 575, 714 19	15, 106, 051 23
1873	134, 666, 001 85	188, 089, 522 70	113, 729, 314 14	315, 254 51	2, 882, 312 38	17, 161, 270 05
1874	159, 203, 673 41	163, 103, 833 69	102, 409, 784 90	.....	1, 852, 428 93	32, 575, 043 32
1875	178, 833, 339 54	157, 167, 722 35	110, 007, 493 58	.....	1, 413, 640 17	15, 431, 915 31
	.....	3, 705, 992, 156 22	2, 068, 609, 231 67	27, 554, 926 93	200, 437, 567 75	300, 741, 319 70

* Amounts heretofore credited to the Treasurer as una

from March 4, 1789, to June 30, 1875, &c.—Continued.

Year.	Dividends.	Net ordinary receipts.	Interest.	Premiums.	Receipts from loans and Treasury-notes.	Gross receipts.	Unavailable.
1866	.....	$519,949,564 38	.....	$38,083,055 68	$712,851,533 05	$1,270,884,173 11	$172,094 29
1867	.....	462,846,679 92	.....	27,787,330 35	640,426,910 29	1,131,060,920 56	721,827 93
							2,675,918 19
1868	.....	376,434,453 82	.....	29,203,629 50	625,111,433 20	1,030,749,516 52	.....
1869	.....	357,188,256 09	.....	13,755,491 12	232,678,081 06	609,621,828 27	*2,070 73
1870	.....	395,959,833 87	.....	15,295,643 76	285,474,496 00	696,729,973 63	.....
1871	.....	374,431,104 94	.....	8,892,839 95	268,768,523 47	652,092,468 36	*3,396 18
1872	.....	364,694,229 91	.....	9,412,637 65	305,047,054 00	679,153,921 56	*18,228 35
1873	.....	392,177,673 78	.....	11,560,530 89	214,931,017 00	548,669,221 67	*3,047 80
1874	.....	299,941,090 84	.....	5,037,665 22	439,272,535 46	744,251,291 52	12,691 40
1875	.....	284,020,771 41	.....	3,979,279 69	387,971,556 00	675,971,607 10	.....
	$9,720,136 29	6,333,055,338 56	$485,224 45	198,001,903 74	8,441,763,203 84	14,973,305,670 59	2,661,666 53

vailable, and since recovered and charged to his account.

TABLE H.—*Statement of the expenditures of the United States from March 4, 1789, to June*

Year.	War.	Navy.	Indians.	Pensions.	Miscellaneous.
1791	$632,804 03	.....	$27,000 00	$175,813 88	$1,083,971 61
1792	1,100,702 09	.....	13,648 85	109,243 15	4,672,664 38
1793	1,130,249 08	.....	27,282 83	80,087 81	511,451 01
1794	2,639,097 59	$61,408 97	13,042 46	81,399 24	750,350 74
1795	2,480,910 13	410,562 03	23,475 68	68,073 22	1,378,920 66
1796	1,260,263 84	274,784 04	113,563 98	100,843 71	801,847 58
1797	1,039,402 46	382,631 89	62,396 58	92,256 97	1,259,422 62
1798	2,009,522 30	1,381,347 76	16,470 09	104,845 33	1,139,524 94
1799	2,466,246 98	2,858,081 84	20,302 19	95,444 03	1,039,391 68
1800	2,560,878 77	3,448,716 03	31 22	64,130 73	1,337,613 22
1801	1,672,944 08	2,111,424 00	9,000 00	73,533 37	1,114,768 45
1802	1,179,148 25	915,561 87	94,000 00	85,440 39	1,462,939 40
1803	822,055 85	1,215,230 53	60,000 00	62,902 10	1,842,635 76
1804	875,423 93	1,189,832 75	116,500 00	80,092 80	2,191,009 43
1805	712,781 28	1,597,500 00	196,500 00	81,854 59	3,768,598 75
1806	1,224,355 38	1,649,641 44	234,200 00	81,875 53	2,890,137 01
1807	1,288,685 91	1,722,054 47	205,425 00	70,500 00	1,697,897 51
1808	2,900,834 40	1,884,067 80	213,575 00	82,576 04	1 423,285 61
1809	3,345,772 17	2,427,758 80	337,503 84	87,833 54	1,215,803 79
1810	2,294,323 94	1,654,244 20	177,625 00	83,744 16	1,101,144 98
1811	2,032,828 19	1,965,566 39	151,875 00	75,043 88	1,367,291 40
1812	11,817,796 24	3,959,365 15	277,845 00	91,402 10	1,683,088 21
1813	19,652,013 02	6,446,600 10	167,358 28	86,989 91	1,729,435 61
1814	20,350,806 86	7,311,290 60	167,394 86	90,164 36	2,208,029 70
1815	14,794,294 82	8,660,000 25	530,750 00	69,656 06	2,898,570 47
1816	16,012,096 80	3,908,278 30	274,512 16	188,804 15	2,969,741 17
1817	8,004,236 53	3,314,598 49	319,463 71	297,374 43	3,518,936 76
1818	5,622,715 10	2,953,695 00	505,704 27	890,719 90	3,835,839 51
1819	6,506,300 77	3,847,640 42	463,181 39	2,415,939 85	3,067,211 41
1820	2,630,392 31	4,387,990 00	315,750 01	3,208,376 31	2,592,021 94
1821	4,461,291 78	3,319,243 06	477,005 44	242,817 25	2,223,121 54
1822	3,111,981 48	2,224,458 98	575,007 41	1,948,199 40	1,967,996 94
1823	3,096,924 43	2,503,765 83	380,781 82	1,780,588 52	2,022,093 99
1824	3,340,939 85	2,904,581 56	429,987 90	1,499,326 59	7,155,308 81
1825	3,659,914 18	3,049,063 86	724,106 44	1,308,810 57	2,748,544 89
1826	3,943,194 37	4,218,902 45	743,447 83	1,556,593 83	2,600,177 79
1827	3,948,977 88	4,263,877 45	750,624 88	976,138 86	2,713,476 58
1828	4,145,544 56	3,918,786 44	705,084 24	850,573 57	3,676,052 64
1829	4,724,291 07	3,308,745 47	576,344 74	949,594 47	3,084,234 65
1830	4,767,128 88	3,239,428 63	622,262 47	1,363,297 31	3,237,416 04
1831	4,841,835 55	3,856,183 07	930,738 04	1,170,665 14	3,064,646 10
1832	5,446,034 88	3,956,370 29	1,352,419 75	1,184,422 40	4,577,141 45
1833	6,704,019 10	3,901,356 75	1,802,980 93	4,589,152 40	5,716,245 93
1834	5,696,189 38	3,956,260 42	1,003,953 90	3,364,285 30	4,404,728 95
1835	5,539,156 89	3,864,939 06	1,706,444 48	1,954,711 32	4,229,698 53
1836	11,747,345 25	5,807,718 23	5,037,022 88	2,882,797 96	5,393,279 72
1837	13,682,730 80	6,646,914 53	4,348,036 19	2,672,162 45	9,893,370 27
1838	12,897,224 16	6,131,580 53	5,504,191 34	2,156,057 29	7,160,664 76
1839	8,916,995 80	6,182,294 25	2,528,917 28	3,142,750 51	5,725,990 89
1840	7,095,287 23	6,113,896 89	2,331,794 86	2,603,562 17	5,995,398 96
1841	8,801,610 24	6,001,076 97	2,514,837 12	2,388,434 51	6,490,881 45
1842	6,610,438 02	8,397,242 95	1,199,099 68	1,378,931 33	6,775,624 61
1843*	2,908,671 95	3,727,711 53	578,371 00	839,041 12	3,202,713 00
1844	5,218,183 66	6,498,199 11	1,256,539 39	2,032,008 99	5,645,183 86
1845	5,746,291 28	6,297,177 89	1,539,351 35	2,400,788 11	5,911,760 98
1846	10,413,370 58	6,455,013 92	1,027,693 64	1,811,097 56	6,711,283 89
1847	35,840,030 33	7,900,635 76	1,430,411 30	1,744,883 63	6,885,608 35
1848	37,688,334 21	9,408,476 02	1,252,296 81	1,227,496 48	5,650,851 25
1849	14,558,473 26	9,786,705 92	1,374,161 55	1,328,867 64	12,885,334 24
1850	9,687,024 58	7,904,724 66	1,663,591 47	1,866,886 02	16,043,763 36
1851	12,161,965 11	8,890,581 38	2,829,801 77	2,293,377 22	17,888,992 18
1852	8,521,506 19	8,918,842 10	3,043,576 04	2,401,858 78	17,504,171 45
1853	9,910,498 49	11,067,789 53	3,880,494 12	1,756,306 20	17,463,068 01
1854	11,722,282 87	10,790,096 32	1,550,339 55	1,232,665 00	26,672,144 68
1855	14,648,074 07	13,327,095 11	2,772,990 78	1,477,612 33	24,090,425 43
1856	16,963,160 51	14,074,834 64	2,644,263 97	1,296,229 65	31,794,038 87
1857	19,159,150 87	12,651,694 61	4,354,418 87	1,310,380 58	28,565,498 77
1858	25,679,121 63	14,053,264 64	4,978,266 18	1,219,708 30	26,400,016 42
1859	23,154,720 53	14,690,927 90	3,490,534 53	1,222,222 71	23,797,544 40
1860	16,472,202 72	11,514,649 83	2,991,121 54	1,100,802 32	27,977,978 30
1861	21,001,530 67	12,387,156 52	2,865,481 17	1,034,599 73	23,327,287 69
1862	389,173,562 29	42,640,353 09	2,327,948 37	852,170 47	21,385,862 59
1863	603,314,411 82	63,261,235 31	3,152,032 70	1,078,513 36	23,198,382 37
1864	690,391,048 66	85,704,963 74	2,629,975 97	4,985,473 90	27,572,216 87

* For the half-year from Janu

30, 1875, by calendar years to 1843 and by fiscal years (ended June 30) from that time.

Year.	Net ordinary expenditures.	Premiums.	Interest.	Public debt.	Gross expenditures.	Balance in Treasury at the end of the year.
1791	$1, 919, 589 52	.....	$1, 177, 863 03	$699, 984 23	$3, 797, 436 78	$973, 905 75
1792	5, 896, 258 47	.....	2, 373, 611 28	693, 050 25	8, 962, 920 00	783, 444 51
1793	1, 749, 070 73	.....	2, 097, 859 17	2, 633, 048 07	6, 479, 977 97	753, 661 69
1794	3, 545, 299 60	.....	2, 752, 523 04	2, 743, 771. 13	9, 041, 593 17	1, 151, 924 17
1795	4, 362, 641 72	.....	2, 947, 059 06	2, 841, 639 37	10, 151, 240 15	516, 442 61
1796	2, 551, 303 15	.....	3, 239, 347 68	2, 577, 126 01	8, 367, 776 84	888, 995 42
1797	2, 833, 110 52	.....	3, 172, 516 73	2, 617, 250 12	8, 625, 877 37	1, 021 899 04
1798	4, 651, 710 42	.....	2, 955, 875 90	976, 032 09	8, 583, 618 41	617, 461 43
1799	6, 480, 166 72	.....	2, 815, 651 41	1, 706, 578 84	11, 002, 396 97	2, 161, 867 77
1800	7, 411, 369 97	.....	3, 402, 601 04	1, 138, 563 11	11, 952, 534 12	2, 623, 311 99
1801	4, 981, 669 90	.....	4, 411, 920 08	2, 879, 876 98	12, 273, 376 94	3, 295, 391 00
1802	3, 737, 079 91	.....	4, 239, 172 16	5, 294, 235 24	13, 270, 487 31	5, 020, 697 64
1803	4, 002, 824 24	.....	3, 949, 462 36	3, 306, 697 07	11, 258, 983 67	4, 825, 811 60
1804	4, 452, 858 91	.....	4, 185, 048 74	3, 977, 206 07	12, 615, 113 72	4, 037, 005 26
1805	6, 357, 234 62	.....	2, 657, 114 22	4, 583, 960 63	13, 598, 309 47	3, 999, 388 99
1806	6, 080, 209 36	.....	3, 368, 968 26	5, 572, 018 64	15, 021, 196 26	4, 588, 123 80
1807	4, 984, 572 89	.....	3, 369, 578 48	2, 938, 141 62	11, 292, 292 99	9, 643, 850 07
1808	6, 504, 338 85	.....	2, 557, 074 23	7, 701, 288 96	16, 762, 702 04	9, 941, 809 96
1809	7, 414, 672 14	.....	2, 866, 074 90	3, 586, 479 26	13, 867, 226 30	3, 848, 056 78
1810	5, 311, 082 28	.....	3, 163, 671 09	4, 835, 241 12	13, 309, 994 49	2, 672, 276 57
1811	5, 592, 604 86	.....	2, 585, 435 57	5, 414, 564 43	13, 592, 604 86	3, 502, 305 80
1812	17, 829, 498 70	.....	2, 451, 272 57	1, 998, 349 88	22, 279, 121 15	3, 862, 217 41
1813	28, 082, 396 92	.....	3, 599, 455 22	7, 508, 668 22	39, 190, 520 36	5, 196, 542 00
1814	30, 127, 686 38	.....	4, 593, 239 04	3, 307, 304 90	38, 028, 230 32	1, 737, 846 63
1815	26, 955, 571 00	.....	5, 990, 090 24	6, 638, 832 11	39, 582, 493 35	13, 106, 592 88
1816	23, 373, 432 58	.....	7, 822, 923 34	17, 048, 139 59	48, 244, 495 51	22, 033, 519 19
1817	15, 454, 609 92	.....	4, 536, 282 55	20, 886, 753 57	40, 877, 646 04	14, 989, 465 48
1818	13, 808, 673 78	.....	6, 209, 954 03	15, 086, 247 59	35, 104, 875 40	1, 478, 526 74
1819	16, 300, 273 44	.....	5, 211, 730 56	2, 492, 195 73	24, 004, 199 73	2, 079, 992 38
1820	13, 134, 530 57	.....	5, 151, 004 32	3, 477, 489 96	21, 763, 024 85	1, 198, 461 21
1821	10, 723, 479 07	.....	5, 126, 073 79	3, 241, 019 83	19, 090, 572 69	1, 681, 592 24
1822	9, 827, 643 51	.....	5, 172, 788 79	2, 676, 160 33	17, 676, 592 63	4, 237, 427 55
1823	9, 784, 154 59	.....	4, 922, 475 40	607, 541 01	15, 314, 171 00	9, 463, 922 81
1824	15, 330, 144 71	.....	4, 943, 557 93	11, 624, 835 83	31, 898, 538 47	1, 946, 597 13
1825	11, 490, 459 94	.....	4, 366, 757 40	7, 728, 587 38	23, 585, 804 72	5, 201, 650 43
1826	13, 062, 316 27	.....	3, 975, 542 95	7, 065, 539 24	24, 103, 398 46	6, 358, 686 18
1827	12, 653, 095 65	.....	3, 486, 071 51	6, 517, 596 88	22, 656, 764 04	6; 668, 286 10
1828	13, 296, 041 45	.....	3, 098, 800 60	9, 064, 637 47	25, 459, 479 52	5, 972, 435 81
1829	12, 641, 210 40	.....	2, 542, 843 23	9, 860, 304 77	25, 044, 358 40	5, 755, 704 79
1830	13, 229, 533 33	.....	1, 912, 574 93	9, 443, 173 29	24, 585, 281 55	6, 014, 539 75
1831	13, 864, 067 90	.....	1, 373, 748 74	14, 800, 629 48	30, 038, 446 12	4, 502, 914 45
1832	16, 516, 388 77	.....	772, 561 50	17, 067, 747 79	34, 356, 698 06	2, 011, 777 55
1833	22, 713, 755 11	.....	303, 796 67	1, 239, 746 51	24, 257, 298 49	11, 702, 905 31
1834	18, 425, 417 25	.....	202, 152 98	5, 974, 412 21	24, 601, 982 44	8, 892, 858 42
1835	17, 514, 950 28	.....	57, 863 08	328 20	17, 573, 141 56	26, 749, 803 96
1836	30, 868, 164 04	.....	.....	.....	30, 868, 164 04	46, 708, 436 00
1837	37, 243, 314 24	.....	.....	21, 822 91	37, 265, 037 15	37, 327, 252 69
1838	33, 849, 718 08	.....	14, 996 48	5, 590, 723 79	39, 455, 438 35	36, 801, 196 94
1839	26, 496, 948 73	.....	399, 833 89	10, 718, 153 53	37, 614, 936 15	33, 157, 503 68
1840	24, 139, 990 11	.....	174, 598 08	3, 912, 015 62	28, 226, 533 81	29, 963, 163 46
1841	26, 196, 840 29	.....	284, 977 55	5, 315, 712 19	31, 797, 530 03	28, 685, 111 08
1842	24, 361, 336 59	.....	773, 549 85	7, 801, 990 09	32, 936, 876 53	30, 521, 979 44
1843	11, 256, 508 60	.....	523, 583 91	338, 012 64	12, 118, 105 15	39, 186, 284 74
1844	20, 650, 108 01	.....	1, 833, 452 13	11, 158, 450 71	33, 642, 010 85	36, 742, 829 62
1845	21, 895, 369 61	$18, 231 43	1, 040, 458 18	7, 536, 349 49	30, 490, 408 71	36, 194, 274 81
1846	26, 418, 459 59	.....	842, 723 27	371, 100 04	27, 632, 282 90	38, 261, 959 65
1847	53, 801, 569 37	.....	1, 119, 214 72	5, 600, 067 65	60, 520, 851 74	33, 079, 276 43
1848	45, 227, 454 71	.....	2, 390, 765 88	13, 036, 922 54	60, 655, 143 19	29, 416, 612 45
1849	39, 933, 542 61	82, 865 81	3, 565, 535 78	12, 804, 478 54	56, 386, 422 74	32, 827, 082 69
1850	37, 165, 990 09	.....	3, 782, 393 03	3, 656, 335 14	44, 604, 718 26	35, 871, 753 31
1851	44, 054, 717 66	69, 713 15	3, 606, 760 75	654, 912 71	48, 476, 104 31	40, 158, 353 25
1852	40, 329, 954 56	170, 063 42	4, 000, 297 80	2, 152, 293 05	46, 712, 608 83	43, 338, 860 02
1853	44, 078, 156 35	420, 498 64	3, 665, 832 74	6, 412, 574 01	54, 577, 061 74	50, 261, 901 09
1854	51, 967, 528 42	2, 877, 818 69	3, 070, 926 69	17, 556, 890 95	75, 473, 170 75	48, 591, 073 41
1855	56, 316, 197 73	872, 047 39	2, 314, 464 99	6, 662, 065 86	66, 164, 775 96	47, 777, 672 13
1856	66, 772, 527 64	385, 372 90	1, 953, 822 37	3, 614, 618 66	72, 726, 341 57	49, 108, 229 80
1857	66, 041, 143 70	363, 572 39	1, 393, 265 23	3, 276, 606 05	71, 274, 587 37	46, 802, 855 00
1858	72, 330, 437 17	574, 443 08	1, 652, 055 67	7, 505, 250 82	82, 062, 186 74	35, 113, 334 22
1859	66, 355, 950 07	.....	2, 637, 649 70	14, 685, 043 15	83, 678, 642 92	33, 193, 248 60
1860	60, 056, 754 71	.....	3, 144, 120 94	13, 854, 250 00	77, 055, 125 65	32, 979, 530 78
1861	66, 616, 055 78	.....	4, 034, 157 30	18, 737, 100 00	85, 387, 313 08	30, 963, 857 83
1862	456, 379, 496 81	.....	13, 190, 344 84	96, 097, 322 09	565, 667, 563 74	46, 965, 304 87
1863	694, 004, 575 56	.....	24, 729, 700 62	181, 081, 635 07	899, 815, 911 25	36; 523, 046 13
1864	811, 283, 679 14	.....	53, 685. 421 69	430, 572, 014 03	1, 295, 541, 114 86	134, 433, 738 44

ary 1, 1843, to June 30, 1843.

RHODE ISLAND HOUSE OXFORD LIBRARY

TABLE H.—*Statement of the expenditures of the United*

Year.	War.	Navy.	Indians.	Pensions.	Miscellaneous.
1865	$1,030,690,400 06	$122,617,434 07	$5,059,360 71	$16,347,621 34	$42,989,383 10
1866	283,154,676 06	43,285,602 00	3,295,729 32	15,005,549 88	40,613,114 17
	3,568,638,312 23	717,551,816 39	103,369,211 42	119,607,656 01	643,604,554 33
	*3,621,780 07	*77,992 17	*53,286 61	*9,737 87	*718,769 52
	3,572,260,092 35	717,629,808 56	103,422,498 03	119,617,393 88	644,323,323 85
1867	95,224,415 63	31,034,011 04	4,642,531 77	20,936,551 71	51,110,223 72
1868	123,246,648 62	25,775,502 72	4,100,682 32	23,782,386 78	53,009,867 67
1869	78,501,990 61	20,000,757 97	7,042,923 06	28,476,021 78	56,474,061 53
1870	57,655,675 40	21,780,229 87	3,407,938 15	28,340,202 17	53,237,461 56
1871	35,799,991 82	19,431,027 21	7,426,097 44	34,443,894 88	60,481,916 23
1872	35,372,157 20	21,249,809 99	7,061,728 82	28,533,402 76	60,984,757 42
1873	46,323,138 31	23,526,256 79	7,951,704 88	29,359,426 86	73,328,110 06
1874	42,313,927 22	30,932,587 42	6,692,462 09	29,038,414 66	†85,141,593 61
1875	41,120,645 98	21,497,626 27	8,384,656 82	29,456,210 22	71,070,702 98
	4,127,818,683 14	932,857,617 84	160,134,123 38	371,984,511 70	1,209,162,018 63

* Outstanding

† In this amount is included $15,500,000,

NOTE.—This statement is made from warrants *paid* by the Treasurer up to June 30, 1866. The out- in the Treasury June 30, 1875, by this statement, is $172,804,061.32, from which should be deducted $144 702,416.41.

States from March 4, 1789, *to June* 30, 1875—Continued.

Year.	Net ordinary expenditures.	Premiums.	Interest.	Public debt.	Gross expenditures.	Balance in Treasury at the end of the year.
1865	$1,217,704,199 28	$1,717,900 11	$77,395,090 30	$609,616,141 68	$1,906,433,331 37	$33,933,657 89
1866	385,954,731 43	58,476 51	133,067,624 91	620,263,249 10	1,139,344,081 95	165,301,654 76
	5,152,771,550 43	7,611,003 56	502,689,519 27	2,374,677,102 12	8,037,749,176 38	
	*4,481,566 24	.....	*2,888 48	*100 31	*4,484,555 03	*4,484,555 03
	5,157,253,116 67	7,611,003 56	502,692,407 75	2,374,677,203 43	8,042,233,731 41	160,817,099 73
1867	202,947,733 87	10,813,349 38	143,781,591 91	735,536,980 11	1,093,079,655 27	198,076,537 09
1868	229,915,088 11	7,001,151 04	140,424,045 71	692,549,685 88	1,069,889,970 74	158,936,082 87
1869	190,496,354 95	1,674,680 05	130,694,242 80	261,912,718 31	584,777,996 11	183,781,985 76
1870	164,421,507 15	15,996,555 60	129,235,498 00	393,254,282 13	702,907,842 88	177,604,116 51
1871	157,583,827 58	9,016,794 74	125,576,565 93	399,503,670 65	691,680,858 90	138,019,122 15
1872	153,201,856 19	6,938,266 76	117,357,839 72	405,007,307 54	682,525,270 21	134,666,001 85
1873	180,488,636 90	5,105,919 99	104,750,688 44	233,699,352 58	524,044,597 91	159,293,673 41
1874	194,118,925 00	1,395,073 55	107,119,815 21	422,065,060 23	724,698,933 99	178,833,339 52
1875	171,529,848 27	.....	103,093,544 57	407,377,492 48	682,000,885 32	172,804,061 32
	6,801,956,954 69	65,572,794 67	1,604,726,240 04	6,325,583,753 34	14,797,839,742 74	.....

warrants.
expended under Geneva award.

standing warrants are then added, and the statement is by warrants *issued* from that date. The balance the amount deposited with the States, $28,101,044.91, leaving the net available balance June 30, 1875.

TABLE I.—*Statement of the differences between the several accounts showing the outstanding principal of the public debt, with an explanation thereof, so far as the examination of the accounts has progressed.*

The statement of receipts (Table G) shows the amount which has been covered into the Treasury, as derived from loans and Treasury notes, from the organization of the Government to and including June 30, 1874, to have been	$8,441,763,203 84
The statements of expenditures (Table H) shows the payments from the Treasury for the redemption and purchase of loans and Treasury notes for the same period to have been	6,325,583,753 34
Showing the principal outstanding by these tables June 30, 1874	2,116,179,450 50
The *actual* outstanding principal at that date, as shown by Tables F and O and by the debt-statement of July 1, 1874, was	2,232,284,531 95
Showing	116,105,081 45

more outstanding and unpaid principal by the debt-statement and by Tables F and O than by the receipts and expenditures, Tables G and H.

This difference of $116,105,081.45 is thus explained: The following stocks were issued in payment of various debts and claims, but in the transaction no money ever came into the Treasury. When the stock matured, it was paid out of the general funds then in the Treasury. This showed an expenditure where there had been no corresponding receipt, and, of course, a statement of the debt made from the receipts and expenditures on account of loans and Treasury notes would not be correct, unless these items were added to the receipt side of the account.

French farmers-general loan	$153,688 89
French loan of eighteen million livres	3,267,000 00
Spanish loan of 1781	174,017 13
French loan of ten million livres	1,815,000 00
French loan of six million livres	1,089,000 00
Balance of supplies due France	24,332 86
Dutch loan of 1782	2,000,000 00
Dutch loan of 1784	800,000 00
Debt due foreign officers	186,988 78
Dutch loan of 1787	400,000 00
Dutch loan of 1788	400,000 00
Interest due on the foreign debt	1,771,496 90
Domestic debt of the Revolution, *estimated*	63,918,475 44

The above are the details (so far as the progress of the examination has developed them) of the item in the finance report of 1871, (page 20,) "Revolutionary debt, *estimated*, $76,000,000."

Mississippi-purchase stock	4,282,151 12
Louisiana-purchase stock	11,250,000 00
Washington and Georgetown debt assumed by the United States	1,500,000 00
United States Bank subscription stock	7,000,000 00
Six per cent. Navy stock	711,700 00
Texas-purchase stock	5,000,000 00
Mexican indemnity stock	303,573 92
Bounty-land scrip	233,075 00
Tompkins fraud in loan of 1798	1,000 00

The following amounts represent the discounts suffered in placing the loans named. Only the money actually received was covered into the Treasury. The difference between this and the face-value of the stock issued was the discount. To make the receipts and expenditures on the loan-accounts correct, these discounts should be credited to the loans as receipts and charged to a discount account.

Loan of 1796	10,000 00
Loan of February, 1813	2,109,377 43
Loan of August, 1813	998,581 95
Ten-million loan of 1814	1,983,895 25
Six-million loan of 1814	1,076,826 97
Undesignated stock of 1814	93,868 95
Loan of March, 1815	588,820 93
Loan of February, 1861	2,019,776 10
Unenumerated items, consisting of premiums and discount, interest, commissions, brokerage, &c., the full details of which can only be given when the examination of the accounts of the domestic debt of the Revolution is completed	942,433 83
Total	116,105,081 45

TABLE K.—*Statement showing the condition of the sinking-fund from its institution in May, 1869, to and including June 30, 1875.*

Dr. THE SECRETARY OF THE TREASURY IN ACCOUNT WITH SINKING-FUND. Cr.

July 1, 1868	To ½ of 1 per cent. on the principal of the public debt, being for the three months from April 1 to June 30, 1868	$6,529,219 63	June 30, 1869	By amount of principal purchased, $8,691,000, including $1,000 donation, estimated in gold	$7,261,437 30
				By accrued interest on the amount of purchases in 1869	136,392 56
June 30, 1869	To interest on $8,691,000, being amount of principal of public debt purchased during fiscal year 1869 on this account	196,590 00			
	Balance to new account	672,020 23			
		7,397,829 86			7,397,829 86
July 1, 1869	To 1 per cent. on the principal of the public debt on June 30, 1869, $2,588,452,213.94	25,884,522 14	July 1, 1869	By balance from last year	672,020 23
			June 30, 1870	By amount of principal purchased $28,151,900, estimated in gold	25,893,143 57
June 30, 1870	To interest on $8,691,000, amount of redemption in 1869	521,460 00		By accrued interest on account of purchases in 1870	351,003 54
	To interest on $28,151,900, amount of principal of public debt purchased during fiscal year 1870 on this account	1,254,897 00		By balance to new account	744,711 80
		27,660,879 14			27,660,879 14
July 1, 1870	To balance from last year	744,711 80	June 30, 1871	By amount of principal purchased, $29,936,250, estimated in gold	28,694,017 73
	To 1 per cent. on the principal of the public debt on June 30, 1870, $2,480,672,427.81	24,806,724 28		By accrued interest on account of purchases in 1871	367,783 53
June 30, 1871	To interest on redemption of 1869, $8,691,000	521,460 00		By balance to new account	257,474 32
	To interest on redemption of 1870, $28,151,900	1,689,114 00			
	To interest on $29,936,250, amount of principal of public debt purchased during fiscal year 1871 on this account	1,557,264 50			
		29,319,274 58			29,319,274 58
July 1, 1871	To balance from last year	257,474 32	June 30, 1872	By amount of principal purchased, $32,618,450, estimated in gold	32,248,645 22
	To 1 per cent. on the principal of the public debt on June 30, 1871, $2,353,211,332.32	23,532,113 32		By accrued interest on account of purchases in 1872	430,908 38
June 30, 1872	To interest on redemption of 1869, $8,691,000	521,460 00			
	To interest on redemption of 1870, $28,151,900	1,689,114 00			
	To interest on redemption of 1871, $29,936,250	1,796,175 00			
	To interest on redemption of $32,618,450, amount of principal of public debt purchased during fiscal year 1872 on this account	2,059,325 50			
	To balance to new account	2,823,891 46			
		32,679,553 60			32,679,553 60

DR. TABLE K.—*Statement showing the condition of the sinking-fund, &c.*—Continued. CR.

July 1, 1872	To 1 per cent. on the principal of the public debt on		July 1, 1872	By balance from last year	$2,823,891 46
June 30, 1873	June 30, 1872, $2,253,251,328.79	$22,532,513 29	June 30, 1873	By amount of principal purchased, $28,678,000, estimated in gold	28,457,562 83
	To interest on redemption of 1869, $8,691,000	521,460 00		By accrued interest on account of purchases in 1873	392 385 45
	To interest on redemption of 1870, $28,151,900	1,689,114 00			
	To interest on redemption of 1871, $29,936,250	1,796,175 00			
	To interest on redemption of 1872, $32,618,450	1,957,107 00			
	To interest on redemption of $28,678,000, amount of principal of public debt purchased during fiscal year 1873 on this account	1,725,881 50			
	To balance to new account	1,451,588 95			
		31,673,839 74			31,673,839 74
July 1, 1873	To 1 per cent. on the principal of the public debt on				
June 30, 1874	June 30, 1873, $2,234,482,993.20	22,344,829 93	July 1, 1873	By balance from last year	1,451,588 95
	To interest on redemption of 1869, $8,691,000	521,460 00	June 30, 1874	By amount of principal purchased, $12,936,450, estimated in gold	12,872,850 74
	To interest on redemption of 1870, $28,151,900	1,689,114 00		By accrued interest on account of purchases in 1874	222,586 28
	To interest on redemption of 1871, $29,936,250	1,796,175 00		By balance	16,305,421 96
	To interest on redemption of 1872, $32,618,450	1,957,107 00			
	To interest on redemption of 1873, $28,678,000	1,720,680 00			
	To interest on redemption of $12,936,450, amount of principal of public debt purchased during fiscal year 1874 on this account	823,082 00			
		30,852,447 93			30,852,447 93
July 1, 1874	To 1 per cent. on the principal of the public debt on				
June 30, 1875	June 30, 1874, $2,251,690,468.43	22,516,904 68	June 30, 1875	By amount of principal redeemed, estimated in gold	25,170,400 00
	To interest on redemption of 1869, $8,691,000	521,460 00		By accrued interest on account of redemption in 1875	353,661 56
	To interest on redemption of 1870, $28,151,900	1,689,114 00		By balance	5,996,039 62
	To interest on redemption of 1871, $29,936,250	1,796,175 00			
	To interest on redemption of 1872, $32,618,450	1,957,107 00			
	To interest on redemption of 1873, $28,678,000	1,720,680 00			
	To interest on redemption of 1874, $12,936,450	776,087 00			
	To interest on redemption of $25,170,400, amount of principal of public debt "paid" during fiscal year 1875 on this account	541,973 50			
		31,519,501 18			31,519,501 18

NOTE.—Under the act of March 3, 1875, authorizing the Secretary of the Treasury to call bonds for the sinking-fund, the whole amount required was called and provided for. The balance of $5,996,039.62 not having been presented for payment within the year, will be accounted for in the next statement.

TABLE L.—*Statement showing the purchase of bonds on account of the sinking-fund during each fiscal year from its institution in May, 1869, to and including June 30, 1875.*

Year ended—	Principal redeemed.	Premium paid.	Net cost in currency.	Net cost estimated in gold.	Interest due at close of fiscal year.	Accrued interest paid in coin.	Balance of interest due at close of fiscal year.
JUNE 30, 1869.							
Five-twenties of 1862	$1,621,000 00	$253,822 84	$1,874,822 84	$1,349,970 02	$16,210 00	$7,384 60	$8,825 40
Five-twenties of March, 1864	70,000 00	11,725 00	81,725 00	57,552 82	700 00	218 63	481 37
Five-twenties of June, 1864	1,051,000 00	161,946 45	1,212,946 45	873,205 61	10,510 00	1,470 42	9,039 58
Five-twenties of 1865	465,000 00	74,969 00	539,969 00	387,566 29	4,650 00	2,683 54	1,966 46
Consols, 1865	461,000 00	73,736 80	534,736 80	387,903 26	13,830 00	429 04	13,400 96
Consols, 1867	4,718,000 00	749,208 08	5,467,208 08	3,948,566 11	141,540 00	116,032 35	25,507 65
Consols, 1868	305,000 00	49,442 50	354,442 50	256,653 20	9,150 00	8,173 98	976 02
Total	8,691,000 00	1,374,850 67	10,065,850 67	7,261,437 30	196,590 00	136,392 56	60,197 44
JUNE 30, 1870.							
Five-twenties of 1862	3,542,050 00	493,479 42	4,035,529 42	3,263,099 51	160,919 50	45,994 49	114,925 01
Five-twenties of March, 1864	85,000 00	15,742 87	100,742 87	75,658 54	5,350 00	1,080 99	4,269 01
Five-twenties of June, 1864	3,971,400 00	506,189 91	4,477,589 91	3,647,628 29	165,834 00	49,946 00	115,888 00
Five-twenties of 1865	2,790,250 00	361,735 43	3,151,985 43	2,606,636 20	105,257 50	37,113 53	68,143 97
Consols, 1865	11,532,150 00	1,454,778 37	12,986,928 37	10,681,736 97	495,421 50	145,518 29	349,903 21
Consols, 1867	5,862,550 00	861,763 73	6,744,313 73	5,309,810 90	302,734 50	66,111 51	236,622 99
Consols, 1868	348,500 00	53,363 95	401,863 95	308,573 16	19,380 00	5,238 73	14,141 27
Total	28,131,900 00	3,747,053 68	31,698,953 68	25,893,143 57	1,254,897 00	351,003 54	903,893 46
JUNE 30, 1871.							
Five-twenties of 1862	2,792,950 00	227,607 56	3,020,557 56	2,680,200 05	145,975 00	36,657 80	109,317 20
Five-twenties of March, 1864	29,500 00	2,277 20	31,777 20	28,590 88	1,240 00	388 35	851 65
Five-twenties of June, 1864	3,967,350 00	340,529 63	4,307,879 63	3,847,162 42	201,375 00	51,703 46	149,671 54
Five-twenties of 1865	6,768,600 00	574,923 00	7,343,523 00	6,525,231 42	331,933 50	92,250 58	239,673 92
Consols, 1865	10,222,200 00	850,949 79	11,073,149 79	9,762,387 78	522,117 00	109,455 28	412,661 72
Consols, 1867	6,103,050 00	541,559 41	6,644,609 41	5,600,618 37	351,528 00	76,745 93	274,782 07
Consols, 1868	52,600 00	4,784 61	57,384 61	49,797 81	3,096 00	572 13	2,523 87
Total	29,930,250 00	2,542,631 20	32,478,881 20	28,694,017 73	1,557,264 50	367,782 53	1,189,481 97

TABLE L.—*Statement showing the purchases of bonds on account of the sinking-fund during each fiscal year from its institution, &c.*—Continued.

Year ended—	Principal redeemed.	Premium paid.	Net cost in currency.	Net cost estimated in gold.	Interest due at close of fiscal year.	Accrued interest paid in coin.	Balance of interest due at close of fiscal year.
JUNE 30, 1872.							
Five-twenties of 1862	$6,417,850 00	$764,055 21	$7,181,905 21	$6,345,391 98	$427,849 00	$75,179 43	$352,669 57
Five-twenties of March, 1864	127,100 00	14,959 03	142,059 03	126,123 46	8,894 00	1,338 70	7,555 30
Five-twenties of June, 1864	3,604,650 00	438,656 16	4,043,306 16	3,573,223 63	246,001 50	57,449 80	188,551 70
Five-twenties of 1865	3,635,200 00	436,838 70	4,072,038 70	3,594,747 85	246,562 00	37,817 37	208,744 63
Consols, 1865	11,788,900 00	1,436,989 46	13,225,889 46	11,660,785 89	707,334 00	149,248 21	558,085 79
Consols, 1867	6,958,900 00	833,600 15	7,792,500 15	6,863,777 39	417,534 00	108,487 92	309,046 08
Consols, 1868	85,850 00	9,951 63	95,801 63	84,595 02	5,151 00	1,386 95	3,764 05
Total	32,618,450 00	3,935,050 34	36,553,500 34	32,248,645 22	2,059,325 50	430,908 38	1,628,417 12
JUNE 30, 1873.							
Five-twenties of 1862	7,137,100 00	925,783 87	8,062,883 87	7,089,542 58	431,450 50	101,960 57	329,489 93
Five-twenties of March, 1864	50,000 00	7,372 50	57,372 50	49,780 91	3,500 00	813 70	2,686 30
Five-twenties of June, 1864	3,741,150 00	480,684 37	4,221,834 37	3,715,211 22	223,270 50	42,216 46	181,054 04
Five-twenties of 1865	1,939,850 00	250,635 93	2,210,485 93	1,943,488 93	120,266 50	23,744 47	96,522 03
Consols, 1865	10,768,250 00	1,371,187 17	12,139,437 17	10,668,617 09	646,095 00	145,069 34	501,025 66
Consols, 1867	4,402,100 00	553,610 89	4,955,710 89	4,373,781 76	264,126 00	69,632 51	194,493 49
Consols, 1868	619,550 00	81,383 44	701,533 44	617,140 34	37,173 00	8,948 40	28,224 60
Total	28,678,000 00	3,671,258 17	32,349,258 17	28,457,562 83	1,725,881 50	392,385 45	1,333,496 05
JUNE 30, 1874.							
Five-twenties of 1862	1,421,700 00	161,219 79	1,582,919 79	1,415,391 05	99,519 00	31,743 95	67,775 05
Five-twenties of June, 1864	2,020,550 00	218,457 39	2,239,007 39	2,012,051 32	141,438 50	48,013 46	93,425 04
Five-twenties of 1865	1,247,250 00	135,577 95	1,382,827 95	1,241,571 69	87,307 50	29,348 19	57,959 31
Consols, 1865	3,393,650 00	360,964 62	3,754,614 62	3,374,934 42	203,619 00	46,469 33	157,129 67
Consols, 1867	4,051,000 00	432,348 18	4,483,348 18	4,029,975 86	243,060 00	55,976 97	187,083 03
Consols, 1868	802,300 00	86,505 62	888,805 62	798,946 40	48,138 00	11,014 38	37,123 62
Total	12,936,450 00	1,395,073 55	14,331,523 55	12,872,850 74	823,082 00	222,586 28	600,495 72
JUNE 30, 1875.							
Five-twenties of 1862	*25,170,400 00			25,170,400 00	541,973 50	353,061 56	188,911 94
Grand total	166,182,450 00	16,665,917 61	157,677,967 61	160,598,037 39	8,159,014 00	2,254,120 30	5,904,893 70

* These bonds were redeemed on the call of March 11, 1875, made in pursuance of section 11 of the act of March 3, 1875.

TABLE M.—*Statement of the outstanding principal of the public debt of the United States, June 30, 1875.*

	Length of loan.	When redeemable.	Rates of interest.	Price at which sold.	Amount authorized.	Amount issued.	Amount outstanding.
OLD DEBT.							
Unclaimed dividends upon debt created prior to 1800, and the principal and interest of the outstanding debt created during the war of 1812, and up to 1837.	.....	On demand ...	5 and 6 per cent.	.....	.....	.....	$57,665 00
TREASURY NOTES PRIOR TO 1846.							
The acts of October 12, 1837, (5 Statutes, 201;) May 21, 1838, (5 Statutes, 228;) March 31, 1840, (5 Statutes, 370;) February 15, 1841, (5 Statutes, 411;) January 31, 1842, (5 Statutes, 469;) August 31, 1842, (5 Statutes, 581;) and March 3, 1843, (5 Statutes, 614;) authorized the issue of Treasury notes in various amounts, and with interest at rates named therein, from 1 mill to 6 per centum per annum.	1 and 2 years	1 and 2 years from date.	1 mill to 6 per cent.	Par.....	.....	.....	82,575 35
TREASURY NOTES OF 1846.							
The act of July 22, 1846, (9 Statutes, 39,) authorized the issue of Treasury notes in such sums as the exigencies of the Government might require; the amount outstanding at any one time not to exceed $10,000,000 to bear interest at not exceeding 6 per centum per annum, redeemable one year from date. These notes were receivable in payment of all debts due the United States, including customs-duties.	1 year	1 year from date.	6 per cent ..	Par.....	$10,000,000 00	.....	6,000 00
MEXICAN INDEMNITY.							
A proviso in the civil and diplomatic appropriation act of August 10, 1846, (9 Statutes, 94,) authorized the payment of the principal and interest of the fourth and fifth installments of the Mexican indemnities due April and July, 1844, by the issue of stock, with interest at 5 per centum, payable in five years.	5 years.....	April and July, 1849.	5 per cent ..	Par.....	350,000 00	$303,573 92	1,104 91
TREASURY NOTES OF 1847.							
The act of January 28, 1847, (9 Statutes, 118,) authorized the issue of $23,000,000 Treasury notes, with interest at not exceeding 6 per centum per annum, or the issue of stock for any portion of the amount, with interest at 6 per centum per annum. The Treasury notes under this act were redeemable at the expiration of one or two years; and the interest was to cease at the expiration of sixty days' notice. These notes were receivable in payment of all debts due the United States including customs-duties.	1 and 2 years	After 60 days' notice.	6 per cent...	Par.....	23,000,000,00	.....	950 00

TABLE M.—*Statement of the outstanding principal of the public debt, &c.*—Continued.

	Length of loan.	When redeemable.	Rate of interest.	Price at which sold.	Amount authorized.	Amount issued.	Amount outstanding.
LOAN OF 1847.							
The act of January 28, 1847, (9 Statutes, 118,) authorized the issue of $23,000,000 Treasury notes, with interest at not exceeding 6 per centum per annum, or the issue of stock for any portion of the amount, with interest at 6 per centum per annum, re-imbursable after December 31, 1867. Section 14 authorized the conversion of Treasury notes under this or any preceding act into like stock, which accounts for the apparent overissue.	20 years	January 1, 1868	6 per cent ...	Par	$23,000,000 00	$23,207,000 00	$1,250 00
BOUNTY-LAND SCRIP.							
The 9th section of the act of February 11, 1847, (9 Statutes, 125,) authorized the issue of land-warrants to soldiers of the Mexican war, or scrip, at the option of the soldiers, to bear 6 per centum interest per annum, redeemable at the pleasure of the Government, by notice from the Treasury Department. Interest ceases July 1, 1849.	Indefinite...	July 1, 1849....	6 per cent ...	Par	Indefinite.....	.....	3,499 00
TEXAN INDEMNITY STOCK.							
The act of September 9, 1850, (9 Statutes, 447,) authorized the issue of $10,000,000 stock, with interest at 5 per centum per annum, to the State of Texas, in satisfaction of all claims against the United States arising out of the annexation of the said State. This stock was to be redeemable at the end of fourteen years.	14 years	January 1, 8165	5 per cent ...	Par	10,000 000 00	5,000,000 00	172,000 00
TREASURY NOTES OF 1857.							
The act of December 23, 1857, (11 Statutes, 257,) authorized the issue of $20,000,000 in Treasury notes, $6,000,000 with interest at not exceeding 6 per centum per annum, and the remainder with interest at the lowest rates offered by bidders, but not exceeding 6 per centum per annum. These notes were redeemable at the expiration of one year, and interest was to cease at the expiration of sixty days' notice after maturity. They were receivable in payment of all debts due the United States, including customs-duties.	1 year.....	60 days' notice.	5 and 5½ per cent.	Par	20,000,000 00	20,000,000 00	1,900 00
LOAN OF 1858.							
The act of June 14, 1858, (11 Statutes, 365,) authorized a loan of $20,000,000, with interest at not exceeding 5 per centum per annum, and redeemable any time after January 1, 1874.	15 years.....	January 1, 1874	5 per cent ...	Par	20,000,000 00	20,000,000 00	277,000 00

LOAN OF 1860.							
The act of June 22, 1860, (12 Statutes, 79,) authorized a loan of $21,000,000, (to be used in redemption of Treasury notes,) with interest at not exceeding 6 per centum per annum, redeemable in not less than ten nor more than twenty years.	10 years.....	January 1, 1871	5 per cent...	Par.....	21,000,000 00	7,022,000 00	10,000 00
LOAN OF FEBRUARY, 1861, (1881s.)							
The act of February 8, 1861, (12 Statutes, 129,) authorized a loan of $25,000,000, with interest at not exceeding 6 per centum per annum, reimbursable in not less than ten nor more than twenty years from the date of the act.	10 or 20 yrs..	Jan. 1, 1881	6 per cent...	Par.....	25,000,000 00	18,415,000 00	18,415,000 00
TREASURY NOTES OF 1861.							
The act of March 2, 1861, (12 Statutes, 178,) authorized a loan of $10,000,000, with interest at not exceeding 6 per centum per annum, redeemable on three months' notice after July 1, 1871, and payable July 1, 1881. If proposals for the loan were not satisfactory, authority was given to issue the whole amount in Treasury notes, with interest at not exceeding 6 per centum per annum. The same act gave authority to substitute Treasury notes for the whole or any part of loans authorized at the time of the passage of this act. These notes were to be received in payment of all debts due the United States, including customs-duties, and were redeemable at any time within two years from the date of the act.	2 years	2 years after date.	6 per cent...	Par.....	22,468,100 00	35,364,450 00	3,150 00
	60 days	60 days after date.			12,896,350 00		
OREGON WAR DEBT.							
The act of March 2, 1861, (12 Statutes, 198,) appropriated $2,800,000 for the payment of expenses incurred by the Territories of Washington and Oregon in the suppression of Indian hostilities in the years 1855 and 1856. Section 4 of the act authorized the payment of these claims in bonds redeemable in twenty years, with interest at 6 per centum per annum.	20 years.....	July 1, 1881	6 per cent...	Par.....	2,800,000 00	1,090,850 00	945,000 00
LOAN OF JULY AND AUGUST, 1861, (1881s.)							
The act of July 17, 1861, (12 Statutes, 259,) authorized the issue of $250,000,000 bonds, with interest at not exceeding 7 per centum per annum, redeemable after twenty years. The act of August 5, 1861, (12 Statutes, 313,) authorized the issue of bonds, with interest at 6 per centum per annum, payable after twenty years from date, in exchange for 7.30 notes issued under the act of July 17, 1861. None of such bonds were to be issued for a sum less than $500, and the whole amount of them was not to exceed the whole amount of 7.30 notes issued under the above act of July 17. The amount issued in exchange for 7.30s was $139,321,200.	20 years.....	July 1, 1881	6 per cent..	Par.....	250,000,000 00	50,000,000 00 139,321,200 00	139,321,350 00

TABLE M.—*Statement of the outstanding principal of the public debt, &c.*—Continued.

	Length of loan.	When redeemable.	Rate of interest.	Price at which sold.	Amount authorized.	Amount issued.	Amount outstanding.
OLD DEMAND-NOTES.							
The act of July 17, 1861, (12 Statutes, 259,) authorized the issue of $50,000,000 Treasury notes, not bearing interest of a less denomination than fifty dollars and not less than ten dollars, and payable on demand by the assistant treasurers at Philadelphia, New York, or Boston. The act of August 5, 1861, (12 Statutes, 313,) authorized the issue of these notes in denomination of five dollars; it also added the assistant treasurer at Saint Louis and the designated depositary at Cincinnati to the places where these notes were made payable. The act of February 12, 1862, (12 Statutes, 338,) increased the amount of demand-notes authorized, $10,000,000.	.....	On demand ...	None	Par	$60,000,000 00	$60,000,000 00	$70,107 50
SEVEN-THIRTIES OF 1861.							
The act of July 17, 1861, (12 Statutes, 259,) authorized a loan of $250,000,000, part of which was to be in Treasury notes, with interest at 7 3-10 per centum per annum, payable three years after date.	3 years.....	August 19 and October 1, 1864.	7 3-10 per ct.	Par	140,094,750 00	140,094,750 00	17,100 00
FIVE-TWENTIES OF 1862.							
The act of February 25, 1862, (12 Statutes, 345,) authorized a loan of $500,000,000, for the purpose of funding the Treasury notes and floating debt of the United States, and the issue of bonds therefor, with interest at 6 per centum per annum. These bonds were redeemable after five and payable twenty years from date. The act of March 3, 1864, (13 Statutes, 13,) authorized an additional issue of $11,000,000 of bonds to persons who subscribed for the loan on or before January 21, 1864. The act of January 23, 1865, (13 Statutes, 425,) authorized an additional issue of $4,000,000 of these bonds and their sale in the United States or Europe.	5 or 20 years.	May 1, 1867 ...	6 per cent ...	Par	515,000,000 00	514,771,600 00	65,258,300 00
LEGAL-TENDER NOTES.							
The act of February 25, 1862, (12 Statutes, 345,) authorized the issue of $150,000,000 United States notes, not bearing interest, payable to bearer, at the Treasury of the United States, and of such denominations, not less than five dollars, as the Secretary of the Treasury might deem expedient, $50,000,000 to be in lieu of demand-notes authorized by the act of July 17, 1861; these notes to be a legal tender. The act of July 11, 1862, (12 Statutes, 532,) authorized an additional issue of $150,000,000 United States Treasury notes, of such denominations as the Secretary of the Treasury might deem expedient, but no such note should be for a fractional part of a dollar, and not more than	.....	On demand....	None	Par.....	450,000,000 00	915,420,031 00	375,771,580 00

$5,000,000 of a lower denomination than five dollars, these notes to be a legal tender. The act of March 3, 1863, (12 Statutes, 710,) authorized an additional issue of $150,000,000 United States notes, payable to bearer, of such denominations, not less than one dollar, as the Secretary of the Treasury might prescribe; which notes were made a legal tender. The same act limited the time at which Treasury notes might be exchanged for United States bonds to July 1, 1863. The amount of notes authorized by this act were to be in lieu of $100,000,000 authorized by the resolution of January 17, 1863, (12 Statutes, 822.)							
TEMPORARY LOAN.							
The act of February 25, 1862, (12 Statutes, 346,) authorized temporary-loan deposits of $25,000,000, for not less than thirty days, with interest at 5 per centum per annum, payable after ten days' notice. The act of March 17, 1862, (12 Statutes, 370,) authorized the increase of temporary-loan deposits to $50,000,000. The act of July 11, 1862, (12 Statutes, 532,) authorized a further increase of temporary-loan deposits to $100,000,000. The act of June 30, 1864, (13 Statutes, 218,) authorized a further increase of temporary loan deposits to not exceeding $150,000,000, and an increase of the rate of interest to not exceeding 6 per centum per annum, or a decrease of the rate of interest on ten days' notice, as the public interest might require.	Not less than 30 days.	After ten days' notice.	4, 5, and 6 per cent.	Par.....	150,000,000 00	.....	3,060 00
CERTIFICATES OF INDEBTEDNESS.							
The act of March 1, 1862, (12 Statutes, 352,) authorized the issue of certificates of indebtedness to public creditors who might elect to receive them, to bear interest at the rate of 6 per centum per annum, and payable one year from date, or earlier, at the option of the Government. The act of May 17, 1862, (12 Statutes, 370,) authorized the issue of these certificates in payment of disbursing officers' checks. The act of March 3, 1863, (12 Statutes, 710,) made the interest payable in lawful money.	1 year.....	1 year after date.	6 per cent...	Par.....	No limit.....	561,753,241 65	5,000 00
FRACTIONAL CURRENCY.							
The act of July 17, 1862, (12 Statutes, 592) authorized the use of postal and other stamps as currency, and made them receivable in payment of all dues to the United States less than five dollars. The 4th section of the act of March 3, 1863, (12 Statutes, 711,) authorized the issue of fractional notes in lieu of postal and other stamps and postal currency; made them exchangeable in sums not less than three dollars for United States notes, and receivable for postage and revenue stamps, and in payment of dues to the United States, except duties on imports, less than five dollars; and limited the amount to $50,000,000. The 5th section of the act of June 30, 1864, (13 Statutes, 220,) authorized an issue of $50,000,000 in fractional currency, and provided that the whole amount of these notes outstanding at any one time should not exceed this sum.	.....	On presentation.	None	Par.....	50,000,000 00	223,625,663 45	42,129,424 19

TABLE M.—*Statement of the outstanding principal of the public debt, &c.*—Continued.

	Length of loan.	When redeemable.	Rate of interest.	Price at which sold.	Amount authorized.	Amount issued.	Amount outstanding.
LOAN OF 1863.							
The act of March 3, 1863, (12 Statutes, 709,) authorized a loan of $900,000,000, and the issue of bonds, with interest at not exceeding 6 per centum per annum, and redeemable in not less than ten nor more than forty years, principal and interest payable in coin. The act of June 30, 1864, (13 Statutes, 219,) repeals so much of the preceding act as limits the authority thereunder to the current fiscal year, and also repeals the authority altogether except as relates to $75,000,000 of bonds already advertised for.	17 years.....	July 1, 1881...	6 per cent...	Average premium of 4.13.	$75,000,000 00	$75,000,000 00	$75,000,000 00
ONE-YEAR NOTES OF 1863.							
The act of March 3, 1863, (12 Statutes, 710,) authorized the issue of $400,000,000 Treasury notes, with interest at not exceeding 6 per centum per annum, redeemable in not more than three years, principal and interest payable in lawful money, to be a legal tender for their face value.	1 year	1 year after date.	5 per cent...	Par.....	400,000,000 00	44,520,000 00	66,075 00
TWO-YEAR NOTES OF 1863.							
The act of March 3, 1863, (12 Statutes, 710,) authorized the issue of $400,000,000 Treasury notes, with interest at not exceeding 6 per centum per annum, redeemable in not more than three years, principal and interest payable in lawful money, to be a legal tender for their face value.	2 years.....	2 years after date.	5 per cent...	Par.....	400,000,000 00	166,480,000 00	47,360 00
COIN-CERTIFICATES.							
The fifth section of the act of March 3, 1863, (12 Statutes, 711,) authorized the deposit of gold coin and bullion with the Treasurer or any assistant treasurer, in sums not less than $20, and the issue of certificates therefor in denominations the same as United States notes; also authorized the issue of these certificates in payment of interest on the public debt. It limits the amount of them to not more than 20 per centum of the amount of coin and bullion in the Treasury, and directs their receipt in payment for duties on imports.	.....	On demand ...	None	Par.....	Indefinite.....	562,776,400 00	21,796,300 00
COMPOUND-INTEREST NOTES.							
The act of March 3, 1863, (12 Statutes, 709,) authorized the issue of $400,000,000 Treasury notes, with interest at not exceeding 6 per centum per annum, in lawful money, payable not more than three	3 years.....	June 10, 1867, and May 15, 1868.	6 per cent, compound.	Par.....	400,000,000 00	266,595,440 00	367,390 00

years from date, and to be a legal tender for their face value. The act of June 30, 1864, (13 Statutes, 218,) authorized the issue of $400,000,000 Treasury notes, of any denomination not less than $10, payable not more than three years from date, or redeemable at any time after three years, with interest at not exceeding 7 3-10 per centum, payable in lawful money at maturity, and made them a legal tender for their face value to the same extent as United States notes; $177,045,770 of the amount issued was in redemption of 5 per cent. notes.							
TEN-FORTIES OF 1864.							
The act of March 3, 1864, (13 Statutes, 13,) authorized the issue of $200,000,000 bonds, at not exceeding 6 per centum per annum, redeemable after five and payable not more than forty years from date, in coin.	10 or 40 years	March 1, 1874.	5 per cent...	Par to 7 per c't. prem.	200,000,000 00	196,117,300 00	194,706,300 00
FIVE-TWENTIES OF MARCH, 1864.							
The act of March 3, 1864, (13 Statutes, 13,) authorized the issue of $200,000,000 bonds, at not exceeding 6 per centum per annum, redeemable after five and payable not more than forty years from date in coin.	5 or 20 years.	Nov. 1, 1869...	6 per cent...	Par.....	.....	3,882,500 00	946,600 00
FIVE-TWENTIES OF JUNE, 1864.							
The act of June 30, 1864, (13 Statutes, 218,) authorized a loan of $400,000,000, and the issue therefor of bonds redeemable not less than five nor more than thirty (or forty, if deemed expedient) years from date, with interest at not exceeding 6 per centum per annum, payable semi-annually in coin.	5 or 20 years.	Nov. 1, 1869...	6 per cent...	Par.....	400,000,000 00	125,561,300 00	58,046,200 00
SEVEN-THIRTIES OF 1864 AND 1865.							
The act of June 30, 1864, (13 Statutes, 218,) authorized the issue of $200,000,000 Treasury notes of not less than $10 each, payable at not more than three years from date, or redeemable at any time after three years, with interest at not exceeding 7 3-10 per centum per annum. The act of March 3, 1865, (13 Statutes, 408,) authorized a loan of $600,000,000, and the issue therefor of bonds or Treasury notes; the notes to be of denominations of not less than $50, with interest in lawful money at not more than 7 3-10 per centum per annum.	3 years....	Aug. 15, 1867. June 15, 1868. July 15, 1868.	7 3-10 per ct.	Par.....	800,000,000 00	829,992,500 00	196,500 00
NAVY PENSION-FUND.							
The act of July 1, 1864, (13 Statutes, 414,) authorized the Secretary of the Navy to invest in registered securities of the United States so much of the Navy pension-fund in the Treasury January 1 and July 1 in each year as would not be required for the payment of naval-pensions. Section 2 of the act of July 23, 1868, (15 Statutes, 170,) makes the interest on this fund 3 per centum per annum in lawful money, and confines its use to the payment of naval-pensions exclusively.	Indefinite...	.....	3 per cent...	Par....	Indefinite.....	14,000,000 00	14,000,000 00

TABLE M.—*Statement of the outstanding principal of the public debt, &c.*—Continued.

	Length of loan.	When redeemable.	Rate of interest.	Price at which sold.	Amount authorized.	Amount issued.	Amount outstanding.
FIVE-TWENTIES OF 1865.							
The act of March 3, 1865, (13 Statutes, 468,) authorized the issue of $600,000,000 of bonds or Treasury notes in addition to amounts previously authorized; the bonds to be for not less than $50, payable not more than forty years from date of issue, or after any period not less than five years; interest payable semi-annually at not exceeding 6 per centum per annum when in coin, or 7 3-10 per centum per annum when in currency. In addition to the amount of bonds authorized by this act authority was also given to convert Treasury notes or other interest-bearing obligations into bonds authorized by it. The act of April 12, 1866, (14 Statutes 31,) construed the above act to authorize the Secretary of the Treasury to receive any obligations of the United States, whether bearing interest or not, in exchange for any bonds authorized by it, or to sell any of such bonds, provided the public debt is not increased thereby.	5 or 20 years.	Nov. 1, 1870...	6 per cent...	Par.....	$203, 327, 250 00	$203, 327, 250 00	$152, 534, 350 00
CONSOLS OF 1865.							
The act of March 3, 1865, (13 Statutes, 468,) authorized the issue of $600,000,000 of bonds or Treasury notes in addition to amounts previously authorized; the bonds to be for not less than $50, payable not more than forty years from date of issue or after any period not less than five years, interest payable semi-annually, at not exceeding 6 per centum per annum when in coin, or 7 3-10 per centum per annum when in currency. In addition to the amount of bonds authorized by this act authority was also given to convert Treasury notes or other interest-bearing obligations into bonds authorized by it. The act of April 12, 1866, (14 Statutes, 31,) construed the above act to authorize the Secretary of the Treasury to receive any obligations of the United States, whether bearing interest or not, in exchange for any bonds authorized by it, or to sell any of such bonds, provided the public debt is not increased thereby.	5 or 20 years.	July 1, 1870...	6 per cent...	Par.....	332, 998, 950 00	332, 998, 950 00	202, 663, 100 00
CONSOLS OF 1867.							
The act of March 3, 1865, (13 Statutes, 468,) authorized the issue of $600,000,000 of bonds or Treasury notes in addition to amounts previously authorized; the bonds to be for not less than $50, payable not more than forty years from date of issue or after any period not less than five years; interest payable semi-annually, at not exceeding 6 per centum per annum when in coin, or 7 3-10 per centum per annum when in currency. In addition to the amount of bonds authorized by this act authority was also given to convert Treasury	5 or 20 years.	July 1, 1872...	6 per cent...	Par.....	379, 602, 350 00	379, 616, 050 00	310, 622, 750 00

notes or other interest bearing obligations into bonds authorized by it. The act of April 12, 1866, (14 Statutes, 31,) construed the above act to authorize the Secretary of the Treasury to receive any obligations of the United States, whether bearing interest or not, in exchange for any bonds authorized by it, or to sell any of such bonds, provided the public debt is not increased thereby.

CONSOLS OF 1868.							
The act of March 3, 1865, (13 Statutes, 468,) authorized the issue of $600,000,000 of bonds or Treasury notes in addition to amounts previously authorized; the bonds to be for not less than $50, payable not more than forty years from the date of issue or after any period not less than five years; interest payable semi-annually, at not exceeding 6 per centum per annum when in coin, or 7 3-10 per centum per annum when in currency. In addition to the amount of bonds authorized by this act authority was also given to convert Treasury notes or other interest-bearing obligations into bonds authorized by it. The act of April 12, 1866, (14 Statutes, 31,) construed the above act to authorize the Secretary of the Treasury to receive any obligations of the United States, whether bearing interest or not, in exchange for any bonds authorized by it, or to sell any of such bonds, provided the public debt is not increased thereby.	5 or 20 years.	July 1, 1873 ...	6 per cent...	Par	42, 539, 350 00	42, 539, 350 00	37, 474, 000 00
THREE PER CENT. CERTIFICATES.							
The act of March 3, 1867, (14 Statutes, 558,) authorized the issue of $50,000,000 in temporary loan certificates of deposit, with interest at 3 per centum per annum, payable in lawful money, on demand, to be used in redemption of compound interest notes. The act of July 25, 1868, (15 Statutes, 183,) authorized $25,000,000 additional of these certificates, for the sole purpose of redeeming compound-interest notes.	Indefinite...	On demand ...	3 per cent...	Par	75, 000, 000 00	83, 150, 000 00	5, 000 00
CERTIFICATES OF INDEBTEDNESS OF 1870.							
The act of July 8, 1870, (16 Statutes, 197,) authorized the issue of certificates of indebtedness, payable five years after date, with interest at 4 per centum per annum, payable semi-annually, principal and interest, in lawful money, to be hereafter appropriated and provided for by Congress. These certificates were issued, one-third to the State of Maine and two-thirds to the State of Massachusetts, both for the use and benefit of the European and North American Railway Company, and were in full adjustment and payment of any and all claims of said States or railway company for moneys expended (or interest thereon) by the State of Massachusetts on account of the war of 1812-'15.	5 years	Sept. 1, 1875 ...	4 per cent...	Par	678, 362 41	678, 362 41	678, 000 00

TABLE M.—*Statement of the outstanding principal of the public debt, &c.*—Continued.

	Length of loan.	When redeemable.	Rate of interest.	Price at which sold.	Amount authorized.	Amount issued.	Amount outstanding.
FUNDED LOAN OF 1881.							
The act of July 14, 1870, (16 Statutes, 272) authorizes the issue of $250,000,000 at 5 per centum, $300,000,000 at 4½ per centum, and $1,000,000,000 at 4 per centum, principal and interest payable in coin of the present standard value, at the pleasure of the United States Government, after ten years for the 5 per cents; after fifteen years for the 4½ per cents; and after thirty years for the 4 per cents; these bonds to be exempt from the payment of all taxes or duties of the United States, as well as from taxation in any form by or under State, municipal, or local authority. Bonds and coupons payable at the Treasury of the United States. This act not to authorize an increase of the bonded debt of the United States. Bonds to be sold at not less than par in coin, and the proceeds to be applied to the redemption of outstanding 5-20s, or to be exchanged for said 5-20s par for par. Payment of these bonds, when due, to be made in order of dates and numbers, beginning with each class last dated and numbered. Interest to cease at the end of three months from notice of intention to redeem. The act of January 20, 1871, (16 Statutes, 399,) increases the amount of 5 per cents to $500,000,000, provided the total amount of bonds issued shall not exceed the amount originally authorized, and authorizes the interest on any of these bonds to be paid quarterly.	10 years	May 1, 1881 ...	5 per cent...	Par	$500,000,000 00	$412,300,450 00	$412,300,450 00
CERTIFICATES OF DEPOSIT.							
The act of June 8, 1872, (17 Statutes, 336,) authorizes the deposit of United States notes without interest by banking associations in sums not less than $10,000, and the issue of certificates therefor in denominations of not less than $5,000; which certificates shall be payable on demand in United States notes at the place where the deposits were made. It provides that the notes so deposited in the Treasury shall not be counted as a part of the legal reserve, but that the certificates issued therefor may be held and counted by the national banks as part of their legal reserve, and may be accepted in the settlement of clearing-house balances at the places where the deposits therefor were made, and that the United States notes for which such certificates were issued, or other United States notes of like amount, shall be held as special deposits in the Treasury, and used only for the redemption of such certificates.	Indefinite...	On demand ...	None	Par	No limit	137,675,060 00	58,415,000 00
							2,232,284,531 95

TABLE N. *Statement of 30-year 6 per cent. bonds (interest payable January and July) issued to the several Pacific railway companies under the acts of July 1, 1862, (12 Statutes, 492,) and July 2, 1864, (13 Statutes, 359.)*

Railway companies.	Amount of bonds outstanding.	Amount of interest accrued and paid to date, as per preceding statement.	Amount of interest due, as per Register's schedule.	Total interest paid by the United States.	Repayment of interest by transportation of mails, troops, &c.	Balance due the United States on interest account, deducting repayments.	Balance of accrued interest due the United States on interest account.	Total amount of interest due the United States from Pacific railway companies.
On July 1, 1865:								
Central Pacific	$1,258,000 00		$37,740 00	$37,740 00				$37,740 00
Kansas Pacific								
Union Pacific								
Central Branch Union Pacific								
Western Pacific								
Sioux City and Pacific								
	1,258,000 00		37,740 00	37,740 00				37,740 00
On January 1, 1866:								
Central Pacific	2,362,000 00	$37,740 00	55,056 83	92,796 83				92,796 83
Kansas Pacific	640,000 00		6,417 53	6,417 53				6,417 53
Union Pacific								
Central Branch Union Pacific								
Western Pacific								
Sioux City and Pacific								
	3,002,000 00	37,740 00	61,474 36	99,214 36				99,214 36
On July 1, 1866:								
Central Pacific	3,002,000 00	92,796 83	83,169 03	175,965 86				175,965 86
Kansas Pacific	1,360,000 00	6,417 53	33,026 56	39,444 09				39,444 09
Union Pacific	1,680,000 00		19,917 09	19,917 09				19,917 09
Central Branch Union Pacific								
Western Pacific								
Sioux City and Pacific								
	6,042,000 00	99,214 36	136,112 68	235,327 04				235,327 04
On January 1, 1867:								
Central Pacific	3,962,000 00	175,965 86	111,837 51	287,803 37				287,803 37
Kansas Pacific	2,080,000 00	39,444 09	55,186 84	94,630 93				94,630 93
Union Pacific	4,320,000 00	19,917 09	97,755 65	117,672 74				117,672 74
Central Branch Union Pacific	640,000 00		10,099 74	10,099 74				10,099 74
Western Pacific								
Sioux City and Pacific								
	11,002,000 00	235,327 04	274,879 74	510,206 78				510,206 78

TABLE N.—*Statement of 30-year 6 per cent. bonds (interest payable January and July) issued to the several Pacific railway companies, &c.*—Continued.

Railway companies.	Amount of bonds outstanding.	Amount of interest accrued and paid to date, as per preceding statement.	Amount of interest due, as per Register's schedule.	Total interest paid by the United States.	Repayment of interest by transportation of mails, troops, &c.	Balance due the United States on interest account, deducting repayments.	Balance of accrued interest due the United States on interest account.	Total amount of interest due the United States from Pacific railway companies.
On July 1, 1867:								
Central Pacific	$4,602,000 00	$267,893 37	$136,534 50	$424,337 87	$22,849 07	$401,488 80		$401,488 80
Kansas Pacific	3,360,000 00	94,630 93	78,654 29	173,285 22	27,414 40	145,840 82		145,840 82
Union Pacific	5,520,000 00	117,672 74	147,826 87	265,499 61		265,499 61		265,499 61
Central Branch Union Pacific	960,000 00	10,099 74	22,408 75	32,508 49		32,508 49		32,508 49
Western Pacific	320,000 00		8,206 03	8,206 03		8,206 03		8,206 03
Sioux City and Pacific								
	14,762,000 00	510,206 78	393,630 44	903,837 22	50,293 47	853,543 75		853,543 75
On January 1, 1868:								
Central Pacific	6,074,000 00	424,337 87	145,613 83	569,951 70	29,899 07	540,052 63		540,052 63
Kansas Pacific	4,880,000 00	173,285 22	122,580 26	295,865 48	148,935 26	146,930 22		146,930 22
Union Pacific	8,160,000 00	265,499 61	210,562 28	476,061 89	249,191 98	226,869 91		226,869 91
Central Branch Union Pacific	1,280,000 00	32,508 49	30,325 50	62,833 99		62,833 99		62,833 99
Western Pacific	320,000 00	8,206 03	9,600 00	17,806 03		17,806 03		17,806 03
Sioux City and Pacific								
	20,714,000 00	903,837 22	518,681 87	1,422,519 09	428,026 31	994,492 78		994,492 78
On July 1, 1868:								
Central Pacific	7,020,000 00	569,951 70	185,641 16	755,592 86	36,949 07	718,643 79		718,643 79
Kansas Pacific	6,080,000 00	295,865 48	165,258 16	461,123 64	266,367 71	194,755 93		194,755 93
Union Pacific	12,957,000 00	476,061 89	288,593 86	764,655 75	521,853 03	243,802 72		243,802 72
Central Branch Union Pacific	1,600,000 00	62,833 99	46,974 27	109,808 26		109,808 26		109,808 26
Western Pacific	320,000 00	17,806 03	9,600 00	27,406 03		27,406 03		27,406 03
Sioux City and Pacific	1,112,000 00		19,603 76	19,603 76		19,603 76		19,603 76
	29,089,000 00	1,422,519 09	715,671 21	2,138,190 30	828,169 81	1,314,020 49		1,314,020 49
On January 1, 1869:								
Central Pacific	16,684,000 00	755,592 86	347,193 73	1,102,786 59	46,158 10	1,056,628 49		1,056,628 49
Kansas Pacific	6,303,000 00	461,123 64	184,599 45	645,723 09	368,406 97	277,316 12		277,316 12
Union Pacific	24,078,000 00	764,655 75	549,109 77	1,313,765 52	719,214 87	594,550 65		594,550 65
Central Branch Union Pacific	1,600,000 00	109,808 26	48,000 00	157,808 26		157,808 26		157,808 26
Western Pacific	320,000 00	27,406 03	9,600 00	37,006 03		37,006 03		37,006 03
Sioux City and Pacific	1,112,000 00	19,603 76	33,360 00	52,963 76	16 27	52,947 49		52,947 49
	50,097,000 00	2,138,190 30	1,171,862 95	3,310,053 25	1,133,796 21	2,176,257 04		2,176,257 04

On July 1, 1869:								
Central Pacific	22,789,000 00	1,102,786 50	616,429 59	1,719,216 18	72,666 99	1,646,549 19		1,646,549 19
Kansas Pacific	6,303,000 00	643,721 09	189,090 00	834,813 09	546,569 10	288,243 99		288,243 99
Union Pacific	25,996,000 00	1,313,765 52	768,104 37	2,081,869 89	906,446 11	1,175,423 78		1,175,423 78
Central Branch Union Pacific	1,600,000 00	157,808 26	48,000 00	205,808 26	3,490 79	202,317 47		202,317 47
Western Pacific	320,000 00	37,006 03	9,000 00	46,606 03		46,606 03		46,606 03
Sioux City and Pacific	1,628,320 00	52,963 76	43,514 93	96,508 69	16 27	96,492 42		96,492 42
	58,638,320 00	3,310,053 25	1,674,768 89	4,984,822 14	1,529,189 26	3,455,632 88		3,455,632 88
On January 1, 1870:								
Central Pacific	25,881,000 00	1,719,216 18	772,528 08	2,491,744 26	116,765 86	2,374,978 40		2,374,978 40
Kansas Pacific	6,303,000 00	834,813 09	189,090 00	1,023,903 09	631,224 99	392,678 10		392,678 10
Union Pacific	27,075,000 00	2,081,869 89	809,859 96	2,891,729 85	1,107,427 54	1,784,302 31		1,784,302 31
Central Branch Union Pacific	1,600,000 00	205,808 26	48,000 00	253,808 26	5,301 92	248,506 34		248,506 34
Western Pacific	1,648,000 00	46,606 03	26,682 73	73,288 76		73,288 76		73,288 76
Sioux City and Pacific	1,628,320 00	96,508 69	48,849 60	145,358 29	369 40	144,988 89		144,988 89
	64,135,320 00	4,984,822 14	1,895,010 37	6,879,832 51	1,861,089 71	5,018,742 80		5,018,742 80
On July 1, 1870:								
Central Pacific	25,881,000 00	2,491,744 26	770,023 58	3,261,767 84	164,054 17	3,097,713 67	155,730 40	3,253,444 07
Kansas Pacific	6,303,000 00	1,023,903 09	189,090 00	1,212,993 09	684,359 12	528,633 97	28,717 58	557,351 55
Union Pacific	27,075,000 00	2,891,729 85	821,641 20	3,713,371 05	1,289,576 87	2,423,794 18	67,767 69	2,491,561 87
Central Branch Union Pacific	1,600,000 00	253,808 26	48,000 00	301,808 26	7,401 92	294,406 34	17,857 43	312,263 77
Western Pacific	1,970,000 00	73,288 76	57,508 60	131,197 36		131,197 36	4,274 71	135,472 07
Sioux City and Pacific	1,628,320 00	145,358 29	48,849 60	194,207 89	396 08	193,811 81	5,154 20	198,966 01
	64,457,320 00	6,879,832 51	1,935,512 98	8,815,345 49	2,145,788 16	6,669,557 33	279,502 01	6,949,059 34
On January 1, 1871:								
Central Pacific	25,881,000 00	3,261,767 84	776,430 00	4,038,197 84	241,638 70	3,796,559 14	326,995 81	4,123,554 95
Kansas Pacific	6,303,000 00	1,212,993 09	189,090 00	1,402,083 09	768,148 66	633,934 43	56,879 25	690,813 68
Union Pacific	27,236,512 00	3,713,371 05	817,095 36	4,530,466 41	1,434,952 33	3,095,514 08	194,389 56	3,289,903 64
Central Branch Union Pacific	1,600,000 00	301,808 26	48,000 00	349,808 26	7,401 92	342,406 34	35,410 83	377,817 17
Western Pacific	1,970,000 00	131,197 36	59,100 00	190,297 36	8,281 25	182,016 11	10,598 09	192,614 20
Sioux City and Pacific	1,628,320 00	194,207 89	48,849 60	243,057 49	396 08	242,661 41	15,762 43	258,423 84
	64,618,832 00	8,815,345 49	1,938,564 96	10,753,910 45	2,460,818 94	8,293,091 51	640,035 97	8,933,127 48
On July 1, 1871:								
Central Pacific	25,881,000 00	4,038,197 84	776,430 00	4,814,627 84	343,266 90	4,471,360 94	449,753 57	4,921,114 51
Kansas Pacific	6,303,000 00	1,402,083 09	189,090 00	1,591,173 09	857,330 93	733,842 16	76,932 82	810,774 98
Union Pacific	27,236,512 00	4,530,466 41	817,095 36	5,347,561 77	1,755,303 15	3,592,258 62	289,874 27	3,882,132 89
Central Branch Union Pacific	1,600,000 00	349,808 26	48,000 00	397,808 26	9,276 92	388,531 34	46,725 32	435,256 66
Western Pacific	1,970,000 00	190,297 36	59,100 00	249,397 36	8,281 25	241,116 11	16,376 52	257,492 63
Sioux City and Pacific	1,628,320 00	243,057 49	48,849 60	291,907 09	401 88	291,505 21	23,515 13	315,020 34
	64,618,832 00	10,753,910 45	1,938,564 96	12,692,475 41	2,973,861 03	9,718,614 38	903,177 63	10,621,792 01

TABLE N.—*Statement of 30-year 6 per cent. bonds (interest payable January and July) issued to the several Pacific railway companies, &c.*—Continued.

Railway companies.	Amount of bonds outstanding.	Amount of interest accrued and paid to date, as per preceding statement.	Amount of interest due, as per Register's schedule.	Total interest paid by the United States.	Repayment of interest by transportation of mails, troops, &c.	Balance due the United States on interest account, deducting repayments.	Balance of accrued interest due the United States on interest account.	Total amount of interest due the United States from Pacific railway companies.
On January 1, 1872:								
Central Pacific	$25,881,000 00	$4,814,627 84	$776,430 00	$5,591,057 84	$422,556 33	$5,168,501 51	$595,968 12	$5,764,469 63
Kansas Pacific	6,303,000 00	1,591,173 09	189,090 00	1,780,263 09	927,829 30	852,433 79	100,272 17	952,705 96
Union Pacific	27,236,512 00	5,347,561 77	817,095 36	6,164,657 13	1,964,850 08	4,199,807 05	402,429 22	4,602,236 27
Central Branch Union Pacific	1,600,000 00	397,808 26	48,000 00	445,808 26	9,276 92	436,531 34	59,783 02	496,314 36
Western Pacific	1,970,000 00	249,397 36	59,100 00	308,497 36	9,350 25	299,147 11	24,078 92	323,226 03
Sioux City and Pacific	1,628,320 00	291,907 09	48,849 60	340,756 69	401 88	340,354 81	32,965 74	373,320 55
	64,618,832 00	12,692,475 41	1,938,564 96	14,631,040 37	3,334,264 76	11,296,775 61	1,215,497 19	12,512,272 80
On July 1, 1872:								
Central Pacific	25,885,120 00	5,591,057 84	777,318 23	6,368,376 07	527,025 39	5,841,350 68	766,898 68	6,608,249 36
Kansas Pacific	6,303,000 00	1,780,263 09	189,090 00	1,969,353 09	973,904 69	995,448 40	128,262 25	1,123,710 65
Union Pacific	27,236,512 00	6,164,657 13	817,095 36	6,981,752 49	2,181,989 43	4,799,763 06	537,973 22	5,337,736 28
Central Branch Union Pacific	1,600,000 00	445,808 26	48,000 00	493,808 26	15,839 42	477,968 84	74,538 53	552,507 37
Western Pacific	1,970,560 00	308,497 36	59,181 98	367,679 34	9,350 25	358,329 09	33,775 70	392,104 79
Sioux City and Pacific	1,628,320 00	340,756 69	48,849 60	389,606 29	825 60	388,780 69	44,165 12	432,945 81
	64,623,512 00	14,631,040 37	1,939,535 17	16,570,575 54	3,708,934 78	12,861,640 76	1,585,613 50	14,447,254 26
On January 1, 1873:								
Central Pacific	25,885,120 00	6,368,376 07	776,553 60	7,144,929 67	614,057 06	6,530,872 61	963,723 26	7,494,595 87
Kansas Pacific	6,303,000 00	1,969,353 09	189,090 00	2,158,443 09	1,067,179 03	1,091,264 06	160,631 78	1,251,895 84
Union Pacific	27,236,512 00	6,981,752 49	817,095 36	7,798,847 85	2,296,875 90	5,501,971 95	696,737 82	6,198,709 77
Central Branch Union Pacific	1,600,000 00	493,808 26	48,000 00	541,808 26	17,714 42	524,093 84	91,093 42	615,187 26
Western Pacific	1,970,560 00	367,679 34	59,116 80	426,796 14	9,350 25	417,445 89	45,538 84	462,984 73
Sioux City and Pacific	1,628,320 00	389,606 29	48,849 60	438,455 89	825 69	437,630 20	57,153 49	494,783 69
	64,623,512 00	16,570,575 54	1,938,705 36	18,509,280 90	4,006,002 35	14,503,278 55	2,014,878 61	16,518,157 16
On July 1, 1873:								
Central Pacific	25,885,120 00	7,144,929 67	776,553 60	7,921,483 27	725,037 15	7,196,446 12	1,186,138 37	8,382,584 49
Kansas Pacific	6,303,000 00	2,158,443 09	189,090 00	2,347,533 09	1,082,195 36	1,265,337 73	197,874 38	1,463,212 11
Union Pacific	27,236,512 00	7,798,847 85	817,095 36	8,615,943 21	2,383,019 67	6,232,923 54	881,268 16	7,114,191 70

Central Branch Union Pacific	1,600,000 00	541,808 26	48,000 00	589,808 26	18,651 92	571,156 34	100,529 94	689,686 28
Western Pacific	1,970,560 00	426,296 14	59,116 80	485,912 94	10,367 00	476,545 94	50,428 02	535,973 96
Sioux City and Pacific	1,628,320 00	438,455 89	48,849 60	487,305 49	4,869 72	482,435 77	71,947 61	554,383 38
	64,623,512 00	18,509,280 90	1,938,705 36	20,447,986 26	4,223,140 82	16,224,845 44	2,506,186 48	18,731,031 92
On January 1, 1874:								
Central Pacific	25,885,120 00	7,921,483 27	776,553 60	8,698,036 87	808,671 30	7,889,365 57	1,437,486 68	9,326,852 25
Kansas Pacific	6,303,000 00	2,347,533 09	189,090 00	2,536,623 09	1,206,033 28	1,330,589 81	240,274 81	1,570,864 62
Union Pacific	27,236,512 00	8,615,943 21	817,095 36	9,433,038 57	2,613,354 34	6,819,684 23	1,090,907 23	7,910,591 46
Central Branch Union Pacific	1,600,000 00	589,808 26	48,000 00	637,808 26	21,893 27	615,914 99	129,863 46	745,778 45
Western Pacific	1,970,560 00	485,912 94	59,116 80	545,029 74	9,367 00	535,662 74	75,507 24	611,169 98
Sioux City and Pacific	1,628,320 00	487,305 49	48,849 60	536,155 09	6,735 54	529,419 55	88,557 31	617,976 86
	64,623,512 00	20,447,986 26	1,938,705 36	22,386,691 62	4,666,054 73	17,720,636 89	3,062,686 73	20,783,323 62
On July 1, 1874:								
Central Pacific	25,885,120 00	8,698,036 87	776,553 60	9,474,590 47	1,099,542 23	8,375,048 24	1,712,114 30	10,087,162 54
Kansas Pacific	6,303,000 00	2,536,623 09	189,090 00	2,725,713 09	1,291,592 26	1,434,120 83	286,568 96	1,720,689 79
Union Pacific	27,236,512 00	9,433,038 57	817,095 36	10,250,133 93	2,816,174 10	7,433,959 83	1,325,779 64	8,759,739 47
Central Branch Union Pacific	1,600,000 00	637,808 26	48,000 00	685,808 26	27,549 50	658,258 76	152,132 79	810,391 55
Western Pacific	1,970,560 00	545,029 74	59,116 80	604,146 54	9,367 00	594,779 54	93,842 34	688,621 88
Sioux City and Pacific	1,628,320 00	536,155 09	48,849 60	585,004 69	7,811 29	577,193 40	107,084 60	684,278 00
	64,623,512 00	22,386,691 62	1,938,705 36	24,325,396 98	5,252,036 38	19,073,360 60	3,677,522 63	22,750,883 23
On January 1, 1875:								
Central Pacific	25,885,120 00	9,474,590 47	776,553 60	10,251,144 07	1,164,814 98	9,086,329 09	2,013,565 89	11,099,894 98
Kansas Pacific	6,303,000 00	2,725,713 09	189,090 00	2,914,803 09	1,327,722 26	1,587,080 83	337,269 08	1,924,349 91
Union Pacific	27,236,512 00	10,250,133 93	817,095 36	11,067,229 29	3,060,155 48	8,007,073 81	1,585,863 94	9,592,937 75
Central Branch Union Pacific	1,600,000 00	685,808 26	48,000 00	733,808 26	31,924 50	701,883 76	176,395 13	878,278 89
Western Pacific	1,970,560 00	604,146 54	59,116 80	663,263 34	9,367 00	653,896 34	114,501 00	768,397 34
Sioux City and Pacific	1,628,320 00	585,004 69	48,849 60	633,854 29	7,853 90	626,000 39	127,612 51	753,612 90
	64,623,512 00	24,325,396 98	1,938,705 36	26,264,102 34	5,601,838 12	20,662,264 22	4,355,207 55	25,017,471 77
On July 1, 1875:								
Central Pacific	25,885,120 00	10,251,144 07	776,553 60	11,027,697 67	1,166,667 51	9,861,030 16	2,346,543 93	12,207,573 09
Kansas Pacific	6,303,000 00	2,914,803 09	189,090 00	3,103,893 09	1,403,884 21	1,700,008 88	393,877 82	2,093,886 70
Union Pacific	27,236,512 00	11,067,229 29	817,095 36	11,884,324 65	3,504,826 14	8,379,498 51	1,868,193 03	10,247,691 54
Central Branch Union Pacific	1,600,000 00	733,808 26	48,000 00	781,808 26	39,424 50	742,383 76	202,655 14	945,038 90
Western Pacific	1,970,560 00	663,263 34	59,116 80	722,380 14	9,367 00	713,013 14	137,552 91	850,566 05
Sioux City and Pacific	1,628,320 00	633,854 29	48,849 60	682,703 89	10,141 93	672,561 96	150,200 39	822,762 35
	64,623,512 00	26,264,102 34	1,938,705 36	28,202,807 70	6,134,311 29	22,068,496 41	5,099,022 22	27,167,518 63

TABLE O.—*Returns, by award of the United States Court of Claims, of proceeds of property seized as captured or abandoned, under the act of March 12, 1863, paid from July 1, 1874, to June 30, 1875.*

Date.	To whom paid.	Amount.
July 1, 1874	John H. Nelson	$11,041 49
July 8, 1874	Hawkins F. Price	16,263 36
July 8, 1874	John D. Grissett	11,746 02
July 25, 1874	Searing Taylor, executor of Miles Taylor	12,736 91
Aug. 3, 1874	Alzenath Laporte, widow of Jean Laporte	7,296 00
Aug. 5, 1874	Austin R. Hawkins	8,064 00
Aug. 11, 1874	Elbert Gantt	14,016 00
Aug. 11, 1874	James N. Brown	13,862 84
Aug. 18, 1874	Simon Witkowski	45,578 50
Aug. 20, 1874	Lizzie Hamilton, administratrix of C. D. Hamilton	7,064 66
Aug. 20, 1874	Benjamin C. Williams	7,000 95
Aug. 20, 1874	George Watts	21,307 94
Aug. 20, 1874	Thomas W. Watts, jr., and wife	3,076 54
Aug. 25, 1874	Benjamin R. Thomas and Thomas W. Mason	25,184 50
Aug. 25, 1874	Catharine Carson, executrix of James G. Carson	843 00
Aug. 27, 1874	F. W. Boyd, executor of James Railey	37,350 92
Aug. 27, 1874	Allen Jones	4,899 68
Sept. 1, 1874	Henry Peychaud, assignee of Bellocque, Noblom & Co	296,064 00
Sept. 5, 1874	Louise C. Purdy, administratrix of Rice C. Ballard	42,513 48
Sept. 9, 1874	O. T. Morgan, executor of Oliver J. Morgan	21,870 68
Sept. 19, 1874	Johnson *et al.*, representatives of O. J. Morgan	11,964 35
Feb. 25, 1875	John Quinlan, executor of D. O. Grady	4,181 40
Mar. 4, 1875	James Moulton	171 70
Mar. 9, 1875	Lorenzo T. and Eliza Potter	224 00
Mar. 10, 1875	Asher Ayers	2,039 84
Mar. 10, 1875	Alexander Abrams	87 84
Mar. 10, 1875	William B. Adams	1,043 18
Mar. 10, 1875	George W. Anderson	162 76
Mar. 10, 1875	Abraham Backer	1,958 54
Mar. 10, 1875	Daniel H. Baldwin	722 24
Mar. 10, 1875	Tobias Brown	195 20
Mar. 10, 1875	Esadore Cohen	269 50
Mar. 10, 1875	Luke Christie	263 52
Mar. 10, 1875	Philip Dzialynski and Davis Greenfield	1,868 74
Mar. 10, 1875	Max A. Dauphine	2,204 20
Mar. 10, 1875	William Duggan	9 76
Mar. 10, 1875	Lawrence De Give	62 60
Mar. 10, 1875	Levi De Witt and Richard Morgan	521 86
Mar. 10, 1875	George C. Freeman	3,250 08
Mar. 10, 1875	Lewis Fried	299 06
Mar. 10, 1875	James Foley	78 08
Mar. 10, 1875	Michael Gordon	58 56
Mar. 10, 1875	Charlotte M. E. Gallie	1,132 16
Mar. 10, 1875	Thomasine B. Hoyt, use of J. M. Latta	29 54
Mar. 10, 1875	David and Theodore Harrison	3,015 84
Mar. 10, 1875	John F. Hamilton	867 16
Mar. 10, 1875	Harry Haym	3,776 52
Mar. 10, 1875	Nelson Anderson	173 20
Mar. 10, 1875	Charles R. Geilfuss	53 80
Mar. 10, 1875	Diedrich Muller	244 66
Mar. 10, 1875	Alexander Stoddart	1,343 30
Mar. 10, 1875	Frederick M. Scharfer	134 88
Mar. 11, 1875	Mina Berg	663 68
Mar. 11, 1875	William Pollard	85 80
Mar. 12, 1875	Samuel Worthington	1,819 20
Mar. 13, 1875	Alfred Abrams	7 38
Mar. 13, 1875	Louis De Bebian	1,179 80
Mar. 13, 1875	Herman Bulwinkle	323 28
Mar. 13, 1875	Nicholas Culliton	59 18
Mar. 13, 1875	John Fitzgerald	18 78
Mar. 13, 1875	Edward Fordham	52 36
Mar. 13, 1875	John Spain	50 00
Mar. 13, 1875	James A. Seddon	1,509 78
Mar. 13, 1875	Moses Vanderhorst	36 90
Mar. 13, 1875	William T. Porter	213 52
Mar. 13, 1875	Ellen Higgins	448 96
Mar. 13, 1875	William Hunter	195 20
Mar. 13, 1875	Ellen M. Kennedy	6 27
Mar. 13, 1875	William Lattimore	39 04
Mar. 13, 1875	James W. and Harvey W. Lathrop	244 14
Mar. 13, 1875	William Lindon	73 84
Mar. 13, 1875	Hugh Logan	531 08
Mar. 13, 1875	Andrew Low	24,105 70
Mar. 13, 1875	Edward Lovell	297 51
Mar. 13, 1875	Lovell & Lattimore	260 63
Mar. 13, 1875	Mix & Co	00 00
Mar. 13, 1875	James McDonald	39 04
Mar. 13, 1875	Margaret Madgen	78 08
Mar. 13, 1875	Theodore B. and George S. Marshall	819 84

TABLE O.—*Returns, by award of the United States Court of Claims, &c.*—Continued.

Date.	To whom paid.	Amount.
Mar. 13, 1875	Ramon Molina	$234 24
Mar. 13, 1875	William J. Myers, Son & Co	2,947 52
Mar. 13, 1875	Terence Nugent, jr	106 62
Mar. 13, 1875	Samuel F. O'Neill	175 68
Mar. 13, 1875	George Ott	107 36
Mar. 13, 1875	Antonio Ponce	315 08
Mar. 13, 1875	Thomas Price	58 56
Mar. 13, 1875	James K. Reilly	585 60
Mar. 13, 1875	Samuel Wilmot	513 32
Mar. 13, 1875	Louis Robider	117 12
Mar. 13, 1875	Jacob Rosenfield	195 20
Mar. 13, 1875	Jacob Rosenband	303 10
Mar. 13, 1875	Frederick Schuster	2,638 11
Mar. 13, 1875	Charles Schwarz	29 28
Mar. 13, 1875	Lazarus Strauss	322 06
Mar. 13, 1875	John Stevenson	107 36
Mar. 13, 1875	Horace B. Tebbetts	197 64
Mar. 13, 1875	George Taylor and William Tipper	488 00
Mar. 13, 1875	The Hebrew Congregation	68 32
Mar. 13, 1875	Gustave A. Wirth	242 40
Mar. 13, 1875	James J. Waring	146 40
Mar. 13, 1875	Stephen Watson	4,099 20
Mar. 13, 1875	John R. Wilder	742 84
Mar. 13, 1875	Robert Williams	390 40
Mar. 13, 1875	Aaron Wilbur	995 52
Mar. 13, 1875	Henry Wurzburg and S. Witkowski	3,347 68
Mar. 13, 1875	Ephraim Zacharias	283 04
Mar. 13, 1875	Christian Ammé	51 66
Mar. 13, 1875	Wolfe Barnett	179 72
Mar. 13, 1875	Christian L. Blaize	70 92
Mar. 13, 1875	Henry Behrens	31 52
Mar. 13, 1875	Ferd. Brown	120 25
Mar. 13, 1875	James T. Carroll	14 80
Mar. 13, 1875	Mary A. Cherrill	63 04
Mar. 13, 1875	John Chaves	107 08
Mar. 13, 1875	H. W. Dorre and A. Seckendorf	51 66
Mar. 13, 1875	George T. Drew	1,952 00
Mar. 13, 1875	Anthony Fernandez	1,151 68
Mar. 13, 1875	Erastus Foster	718 10
Mar. 13, 1875	Henry Fields	48 80
Mar. 13, 1875	John L. Fenwick	22 64
Mar. 13, 1875	Simon Fass and James Mintz	48 18
Mar. 13, 1875	William Grant	29 52
Mar. 13, 1875	August Geilfuss	140 00
Mar. 13, 1875	William H Greene	336 52
Mar. 13, 1875	Erastus Henry	183 76
Mar. 13, 1875	Robert H. Harney	20 14
Mar. 13, 1875	Daniel Hass	709 20
Mar. 13, 1875	William Hunt	313 88
Mar. 13, 1875	Richard Harrison	47 28
Mar. 13, 1875	George S. Holmes	15 76
Mar. 13, 1875	John C. Schreiner	419 68
Mar. 13, 1875	Jean Sauvestre	31 30
Mar. 13, 1875	Jacob Cohen	156 16
Mar. 13, 1875	Jane Parker, administratrix of Hermon Parker	323 20
Mar. 15, 1875	Frederick Jager	287 82
Mar. 15, 1875	James H. Johnson	1,293 52
Mar. 15, 1875	Benjamin Mantone	326 66
Mar. 15, 1875	James Melvin	10 76
Mar. 15, 1875	Catharine Martin	19 52
Mar. 15, 1875	William and Robert McIntire	242 52
Mar. 15, 1875	Ralph Meldrim	408 88
Mar. 15, 1875	Jacob Mills	59 04
Mar. 15, 1875	David Mathews	7 38
Mar. 15, 1875	Mary McManus	29 52
Mar. 15, 1875	D. McSwiney	14 76
Mar. 15, 1875	Samuel S Miller	58 56
Mar. 15, 1875	William D. and Ellen M. Oliveira	39 04
Mar. 15, 1875	James O. Keiffe	97 60
Mar. 15, 1875	Catharine Peterson	24 78
Mar. 15, 1875	William A. Rook	118 08
Mar. 15, 1875	Henry Schaben	439 20
Mar. 15, 1875	Henry Steitz	150 49
Mar. 15, 1875	Charles and Margaret Schubert	48 80
Mar. 15, 1875	Tobias Scott	14 76
Mar. 15, 1875	Joseph Sasportas	105 17
Mar. 15, 1875	Daniel Sinclair	63 04
Mar. 15, 1875	John Thompson and William Robb	50 22
Mar. 15, 1875	Elde F. Torck	61 22
Mar. 15, 1875	Melvin B. Wilbur	74 44
Mar. 15, 1875	Leonard Wagner	63 80

TABLE O.—*Returns, by award of the United States Court of Claims, &c.*—Continued.

Date.	To whom paid.	Amount.
Mar. 15, 1875	Joseph White	$276 74
Mar. 15, 1875	Henry West	14 80
Mar. 15, 1875	Adolph B. Wesslow	322 08
Mar. 15, 1875	Albert Van Dohlen	22 14
Mar. 15, 1875	Henry A. Ealer	1,054 08
Mar. 15, 1875	Charles J. Quinby	3,524 30
Mar. 15, 1875	Dolway B. Walkington	989 80
Mar. 15, 1875	Nathan Blun	219 50
Mar. 15, 1875	Martin O Donald	36 90
Mar. 15, 1875	James Armstrong	399 60
Mar. 15, 1875	John Burns	7 38
Mar. 15, 1875	James Cantwell	685 58
Mar. 15, 1875	Martin Caulfield	28 92
Mar. 15, 1875	Mary Dallas	75 16
Mar. 15, 1875	Philip Hayes	17 60
Mar. 15, 1875	Louis F Koester	923 34
Mar. 15, 1875	Henry H. Knee	39 42
Mar. 15, 1875	Kate and Thomas Kenney	14 71
Mar. 15, 1875	Rudolph Lobsiger	55 16
Mar. 15, 1875	Francis Perry	15 76
Mar. 15, 1875	James Rudolph	29 60
Mar. 15, 1875	Calvin L. Gilbert	234 24
Mar. 15, 1875	Henry and Isaac Meinhard	281 70
Mar. 15, 1875	William Lightfoot and D. Flanders	790 56
Mar. 15, 1875	Delancy Jenks	29 28
Mar. 15, 1875	Michael Boley	68 32
Mar. 15, 1875	John Habersham	97 60
Mar. 15, 1875	Henry Wayne	156 16
Mar. 15, 1875	Lewis Ross's estate	40 00
Mar. 15, 1875	Frederick Chastanet	125 40
Mar. 15, 1875	Simon Witkowski	1,151 68
Mar. 16, 1875	E H. Martin	69 12
Mar. 16, 1875	Warren M Benton	371 07
Mar. 16, 1875	Lazarus Kohn	164 24
Mar. 16, 1875	Francis J. Ruckh	21 52
Mar. 17, 1875	Sheldon W. Wight	390 40
Mar. 17, 1875	James Heagney	136 64
Mar. 17, 1875	C. B. Miller and J. B. Fellows	1,010 00
Mar. 17, 1875	Robert Cattel	23 64
Mar. 17, 1875	Richard Kelley, administrator of F. M. Kean	47 23
Mar. 18, 1875	Eli Coté, use of J. C. Martin	611 80
Mar. 18, 1875	Alexander and Hugh C. Leckey	60 69
Mar. 18, 1875	James G. Mills	439 20
Mar. 18, 1875	Thomas R., J. G., and C. T. Mills	7,300 48
Mar. 18, 1875	Edward Padelford's estate	7,932 54
Mar. 18, 1875	Edwin Parsons	909 56
Mar. 18, 1875	George Parsons	606 37
Mar. 18, 1875	J. W. Morrell	250 40
Mar. 18, 1875	S. Alexander Smith	800 00
Mar. 18, 1875	Chandler H. Smith	1,483 52
Mar. 18, 1875	Benjamin O Tayloe	943 88
Mar. 18, 1875	Francis T Willis	1,307 84
Mar. 18, 1875	W. W. Worthington	496 17
Mar. 29, 1875	James Kilduff	1,545 30
April 3, 1875	Home Insurance Company	35,529 52
April 3, 1875	Southern Insurance Company	27,176 15
May 5, 1875	James H. Houston	10,560 00
May 8, 1875	James Cross and Edward Cross	9,818 46
May 17, 1875	Julia R. Peterson, administratrix of Batt Peterson	16,493 75
May 25, 1875	Samuel G. Cabell	15,619 75
	Total	868,460 54

TABLE P.—*Awards of the United States Court of Claims, of proceeds of property seized as captured or abandoned, under the act of March 12, 1863, decreed but not paid during the fiscal year ended June 30, 1875.*

Date of decree.	Name of claimant.	Amount awarded.
Feb. 8, 1875	William Dean & Co	$53,475 65
Mar. 15, 1875	Mary J. Davie	1,205 23
Apr. 5, 1875	Sophia G. Moore	13,497 50
Apr. 19, 1875	George W. Ross	15,336 78
Apr. 26, 1875	John L. Villalonga	45,207 45
Apr. 26, 1875	John D. Swain	2,326 45
May 17, 1875	Fred. Gros Claude	463 58
May 17, 1875	John K. Elgee's administrator, Edward Thomas Parker	366,170 83
May 24, 1875	Armistead Burwell	20,950 90
May 24, 1875	William E. Hall	53,265 00
May 24, 1875	Benjamin Harwood	13,316 25
May 24, 1875	James A. Hutchinson	7,457 10
May 24, 1875	Alexander Hutchinson	23,081 50
May 24, 1875	B. G. Humphrey, administrator of Ann Maria Ragsdale	17,755 00
May 24, 1875	Thomas Y. Berry, administrator of Thomas Y. Berry	26,454 95
May 24, 1875	John R. McAlpine	17,755 00
May 24, 1875	Emma J. Jones	17,755 00
May 24, 1875	John Taylor, administrator of Mary P. Marye	7,989 75
May 24, 1875	Ann Eliza Routh	13,316 25
May 24, 1875	Isaac R. Wade	3,798 55
May 24, 1875	Fred. A. Metcalf, administrator of E. M. Hammett	6,158 35
May 24, 1875	John H. Newman	8,877 50
May 24, 1875	Nannette Switzer, (late Abell)	8,173 81
May 24, 1875	E. K. McLean	3,728 55
May 24, 1875	Juliet Glass	3,195 90
May 24, 1875	Charlotte Spear	12,428 50
May 24, 1875	Hiram Harrison	35,510 00
May 24, 1875	E. B. Willis	7,102 00
May 24, 1875	John Willis	22,193 75
May 24, 1875	Jane Jett and Thomas Jett, jr., executors of Thomas Jett	4,438 75
May 24, 1875	George Hawkins	2,663 25
May 24, 1875	James J. Cowan, administrator of John Cowan	21,306 00
May 24, 1875	Clarissa Young	20,595 80
May 24, 1875	J. Reese Cook	7,102 00
May 24, 1875	Thomas A. Marshall	3,906 10
May 24, 1875	Richard Taylor	1,065 30
May 24, 1875	James Stewart	12,428 50
May 24, 1875	Thomas Kidd	85,224 00
May 24, 1875	Duff Green	3,373 45
May 24, 1875	J. B. Brabston	5,680 60
May 24, 1875	Jesse J. Cowan, administrator of Sarah Cowan	8,522 40
May 24, 1875	Alfred W. Brien	7,102 00
May 24, 1875	Robert M. and Stephen A. Douglas	163,140 29
May 24, 1875	John B. Raymond, assignee of John L. Hebron	5,326 50
May 24, 1875	John B. Raymond, assignee of J. W. Maybin	71,020 00
May 24, 1875	Ellen D. Batchelor	9,055 05
May 24, 1875	James Meagher	27,010 85
May 24, 1875	Hannah Bodenheim, executrix of H. Bodenheim	15,979 50
May 24, 1875	Robert G. Johnson	26,454 95
May 24, 1875	Thomas Kidd, administrator of Thomas Bolls	11,363 20
May 31, 1875	William F. Smith	1,679 55
	Total	1,342,425 12

TABLE Q.—*Receipts and Disbursements of the United States Assistant Treasurers for the year ended June 30, 1875.*

NEW YORK.

Balance June 30, 1874		$101,583,488 36
RECEIPTS.		
On account of customs	$111,130,844 44	
On account of internal revenue	2,221,692 50	
On account of gold-notes	70,250,100 00	
On account of certificates, act June 8, 1872	52,760,000 00	
On account of Post-Office Department	10,155,900 95	
On account of transfers	103,435,634 46	
On account of patent-fees	11,234 10	
On account of disbursing officers	233,675,292 90	
On account of assay-office, ordinary expense account	76,364 40	
On account of bullion-account, Superintendent Assay-Office, New York	5,051,593 69	
On account of interest in coin	62,343,947 99	
On account of interest in currency	2,926,690 66	
On account of miscellaneous	54,835,955 00	
		708,875,250 99
		810,458,739 35
DISBURSEMENTS.		
On account of Treasury drafts	399,488,866 46	
On account of Post-Office drafts	9,456,296 77	
On account of disbursing accounts	229,594,102 15	
On account of assay-office, ordinary expense account	91,614 13	
On account of bullion account, Superintendent Assay-Office, New York	7,699,477 97	
On account of interest in coin	62,364,572 89	
On account of interest in currency	2,926,420 66	
		711,621,411 03
Balance June 30, 1875		98,837,328 32

BOSTON.

Balance June 30, 1874		$10,246,247 03
RECEIPTS.		
On account of customs	$15,769,348 22	
On account of internal revenue	607,803 05	
On account of certificates, act June 8, 1872	6,680,000 00	
On account of Post-Office Department	660,809 32	
On account of transfers	32,207,485 04	
On account of patent fees	20,769 50	
On account of disbursing officers	27,185,901 70	
On account of interest in coin	9,198,484 97	
On account of interest in currency	616,340 72	
On account of miscellaneous	5,018,347 35	
		97,965,289 87
		108,211,536 90
DISBURSEMENTS.		
On account of Treasury drafts	$18,125,813 43	
On account of Post-Office drafts	611,982 95	
On account of disbursing accounts	26,883,416 72	
On account of interest in coin	10,258,059 86	
On account of interest in currency	616,340 72	
On account of transfers	22,938,619 93	
On account of certificates of deposit, act June 8, 1872	8,830,000 00	
On account of fractional currency redeemed	2,916,368 89	
		91,180,602 50
Balance June 30, 1875		17,030,934 40

PHILADELPHIA.

Balance June 30, 1874		$9,644,715 81
RECEIPTS.		
On account of customs	$8,200,954 28	
On account of internal revenue	991,228 92	
On account of gold-notes	1,600,000 00	
On account of certificates, act June 8, 1872	13,715,000 00	
On account of Post-Office Department	557,672 35	
On account of transfers	25,095,720 08	
On account of patent-fees	11,835 10	
On account of disbursing officers	19,136,904 08	
On account of interest in coin	2,448,194 75	
On account of interest in currency	193,710 00	
On account of miscellaneous	1,355,205 76	
On account of fractional currency for redemption	4,636,873 24	
		77,943,298 56
		87,588,014 37

DISBURSEMENTS.

On account of Treasury drafts	$14,555,648 05	
On account of Post-Office drafts	504,148 25	
On account of disbursing accounts	19,433,402 97	
On account of interest in coin	4,957,077 91	
On account of interest in currency	193,710 00	
On account of transfers	18,472,417 23	
On account of certificates of deposit, act June 8, 1872	14,840,000 00	
On account of fractional currency redeemed	4,633,854 24	
		$77,590,258 65
Balance June 30, 1875		9,997,755 72

BALTIMORE.

Balance June 30, 1874		$3,830,569 09

RECEIPTS.

On account of customs	$5,705,280 13	
On account of internal revenue	521,859 72	
On account of currency redemption	844,366 99	
On account of gold-sales	3,553,421 00	
On account of premium	469,770 38	
On account of certificates, act June 8, 1872	4,515,000 00	
On account of Post Office Department	302,439 00	
On account of transfers	5,927,740 14	
On account of patent-fees	155 00	
On account of disbursing officers	2,401,341 94	
On account of interest in coin	756,615 00	
On account of interest in currency	96,150 00	
On account of miscellaneous	27,083 62	
		25,121,222 92
		28,951,792 01

DISBURSEMENTS.

On account of Treasury drafts	4,599,754 33	
On account of Post-Office drafts	292,564 29	
On account of disbursing accounts	2,471,705 69	
On account of miscellaneous	179 75	
On account of gold-sales	3,553,421 00	
On account of interest in coin	1,407,813 67	
On account of interest in currency	92,190 00	
On account of transfers	7,286,758 22	
On account of certificates of deposit, act June 8, 1872	5,575,000 00	
On account of fractional-currency redemption	846,020 12	
		26,125,407 07
Balance June 30, 1875		2,826,384 94

CINCINNATI.

Balance June 30, 1874		$2,167,915 25

RECEIPTS.

On account of customs	$469,169 59	
On account of internal revenue	369,095 31	
On account of gold-notes	1,175,000 00	
On account of certificates, act June 8, 1872	1,045,000 00	
On account of Post-Office Department	470,855 41	
On account of transfers	13,316,294 75	
On account of patent-fees	1,989 25	
On account of disbursing officers	3,822,401 61	
On account of interest in coin	1,442,537 53	
On account of interest in currency	2,490 00	
On account of miscellaneous	980,138 25	
		23,094,971 70
		25,262,886 95

DISBURSEMENTS.

On account of Treasury drafts	3,321,164 76	
On account of Post-Office drafts	390,714 05	
On account of disbursing accounts	3,794,698 82	
On account of miscellaneous	3,136 30	
On account of interest in coin	1,528,552 64	
On account of interest in currency	2,490 00	
On account of transfers	11,091,136 41	
On account of certificates of deposit, act June 8, 1872	1,205,000 00	
On account of fractional currency redeemed	863,360 29	
		22,200,253 87
Balance June 30, 1875		3,062,633 08

CHICAGO.

Balance June 30, 1874		$2,180,779 28

RECEIPTS.

On account of customs	$1,854,730 39	
On account of internal revenue	11,453,253 77	
On account of sale of lands	82,207 17	
On account of certificates, act June 8, 1872	1,245,000 00	
On account of Post-Office Department	1,236,061 08	
On account of transfers	9,710,330 55	

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On account of patent-fees	$10,591 45	
On account of disbursing officers	6,809,201 08	
On account of bullion-account for coin-sales	1,250,856 35	
On account of interest in coin	214,532 50	
On account of interest in currency	14,820 00	
On account of miscellaneous	183,960 40	
On account of fractional currency for redemption	381,109 00	
		$34,455,673 74
		36,636,453 02

DISBURSEMENTS.

On account of Treasury drafts	10,626,790 75	
On account of Post-Office drafts	1,281,987 78	
On account of disbursing accounts	6,778,981 79	
On account of bullion-account, coin sold	1,118,699 69	
On account of interest in coin	265,556 50	
On account of interest in currency	41,400 00	
On account of transfers	11,816,576 71	
On account of certificates of deposit, act June 8, 1872	770,000 00	
On account of fractional currency redeemed	384,225 46	
		33,084,318 68
Balance June 30, 1875		3,552,134 34

SAINT LOUIS.

Balance June 30, 1874		$1,816,367 89

RECEIPTS.

On account of customs	$1,483,944 65	
On account of internal revenue	600,556 76	
On account of sale of lands	17,863 15	
On account of certificates, act June 8, 1872	1,875,000 00	
On account of Post-Office Department	961,529 36	
On account of transfers	8,350,456 64	
On account of patent-fees	3,249 70	
On account of disbursing officers	6,629,147 09	
On account of interest in coin	176,257 50	
On account of interest in currency	7,380 00	
On account of miscellaneous	458,169 48	
		20,503,554 33
		22,379,922 22

DISBURSEMENTS.

On account of Treasury drafts	8,750,505 23	
On account of Post-Office drafts	1,013,633 18	
On account of disbursing accounts	6,534,946 28	
On account of sales of coin	1,142,922 82	
On account of interest in coin	252,044 75	
On account of interest in currency	7,380 00	
On account of transfers	1,188,000 00	
On account of certificates of deposit, act June 8, 1872	1,275,000 00	
On account of fractional currency redeemed	441,400 00	
		20,605,832 26
Balance June 30, 1875		1,774,089 96

SAN FRANCISCO.

Balance June 30, 1874		$8,278,532 29

RECEIPTS.

On account of customs	$8,430,758 69	
On account of internal revenue	3,282,182 51	
On account of sale of lands	601,555 17	
On account of Post-Office Department	384,961 68	
On account of transfers	8,560,000 00	
On account of patent-fees	8,405 50	
On account of disbursing officers	19,637,014 50	
On account of miscellaneous	889,919 30	
		41,783,797 35
		50,064,329 64

DISBURSEMENTS.

On account of Treasury drafts	10,386,826 13	
On account of Post-Office drafts	368,750 24	
On account of disbursing accounts	19,988,811 10	
On account of bullion-account	4,000,000 00	
On account of interest in coin	96,739 25	
On account of interest in currency	720 00	
On account of transfers	6,940 629 87	
		41,782,536 59
Balance June 30, 1875		8,281,793 05

CHARLESTON.

Balance June 30, 1874		$286,715 59

RECEIPTS.

On account of customs	50,941 04	
On account of internal revenue	229,996 84	
On account of sale of lands	16,128 25	

On account of gold-notes	$11,100 00	
On account of Post-Office Department	337,548 98	
On account of transfers	1,058,200 00	
On account of disbursing officers	1,038,826 32	
On account of interest in coin	7,980 00	
On account of interest in currency	750 00	
On account of miscellaneous	129,152 73	
		2,950,624 16
		3,237,339 75

DISBURSEMENTS.

On account of Treasury drafts	1,048,092 57	
On account of Post-Office drafts	530,779 81	
On account of disbursing accounts	1,025,934 58	
On account of interest in coin	7,950 00	
On account of interest in currency	750 00	
On account of transfers	396,171 53	
On account of fractional currency redeemed	133,772 02	
		2,943,450 51
Balance June 30, 1875		293,889 24

NEW ORLEANS.

Balance June 30, 1874		$2,561,507 96

RECEIPTS.

On account of customs	$2,671,303 43	
On account of internal revenue	774,233 94	
On account of sale of lands	231 98	
On account of Post-Office Department	513,866 84	
On account of transfers	6,516,600 00	
On account of patent-fees	600 00	
On account of disbursing officers	7,119,035 66	
On account of interest in coin	61,855 00	
On account of interest in currency	2,070 00	
On account of miscellaneous	1,443,888 24	
		19,103,085 09
		21,664,593 05

DISBURSEMENTS.

On account of Treasury drafts	7,433,992 07	
On account of Post-Office drafts	487,140 92	
On account of disbursing accounts	7,394,920 26	
On account of interest in coin	187,217 00	
On account of interest in currency	2,070 00	
On account of transfers	3,013,493 00	
On account of fractional currency redeemed	676,200 00	
		19,195,033 25
Balance June 30, 1875		2,469,559 80

TABLE R.—*Receipts and Disbursements of Designated Depositaries of the United States for the year ended June* 30, 1875.

PITTSBURGH.

Balance June 30, 1874	$275,940 90
Receipts	2,914,434 10
Total	3,190,375 00
Disbursements	2,864,647 14
Balance June 30, 1875	325,727 86
Total	3,190,375 00

BUFFALO.

Balance June 30, 1874	$184,241 26
Receipts	2,528,913 22
Total	2,713,154 48
Disbursements	2,518,749 74
Balance June 30, 1875	194,404 74
Total	2,713,154 48

SANTA FÉ.

Balance June 30, 1874	$249,773 24
Receipts	3,792,458 52
Total	4,042,231 76
Disbursements	3,625,640 88
Balance June 30, 1875	416,590 88
Total	4,042,231 76

TUCSON.

Balance June 30, 1874	$180,634 75

* No report has been received from this office.

PAPERS

ACCOMPANYING

REPORT OF THE SECRETARY OF THE TREASURY.

REPORT OF THE COMMISSIONER OF INTERNAL REVENUE.

TREASURY DEPARTMENT,
OFFICE OF INTERNAL REVENUE,
November 8, 1875.

SIR: I have the honor to transmit herewith certain tabular statements, made up from the accounts of this Office, to enable you, as required by law, to lay the same before Congress, to wit:

Table A, showing the receipts from each specific source of revenue, and the amounts refunded in each collection-district, State, and Territory of the United States, for the fiscal year ended June 30, 1875.

Table B, showing the number and value of internal-revenue stamps ordered monthly by the Commissioner, the receipts from the sale of stamps, and the commissions allowed thereon; also, the number and value of stamps for special taxes, tobacco, cigars, snuff, distilled spirits, and fermented liquors, issued monthly to collectors, during the fiscal year ended June 30, 1875.

Table C, showing the territorial distribution of internal revenue from various sources in the United States for the fiscal years ended June 30, 1864, 1865, 1866, 1867, 1868, 1869, 1870, 1871, 1872, 1873, 1874, and 1875.

Table D, showing the aggregate receipts from each collection-district, State, and Territory, for the fiscal years ended June 30, 1863, 1864, 1865, 1866, 1867, 1868, 1869, 1870, 1871, 1872, 1873, 1874, and 1875.

Table E, showing the total collections from each specific source of revenue for the fiscal years ended June 30, 1863, 1864, 1865, 1866, 1867, 1868, 1869, 1870, 1871, 1872, 1873, 1874, and 1875.

Table F, showing the ratio of receipts from specific sources to the aggregate of all collections for the fiscal years ended June 30, 1864, 1865, 1866, 1867, 1868, 1869, 1870, 1871, 1872, 1873, 1874, and 1875.

Table G, showing the receipts from special taxes under act of June 6, 1872, in each collection-district, State, and Territory, for the special-tax year ended April 30, 1875.

Table H, an abstract of reports of district attorneys, concerning suits and prosecutions under the internal-revenue laws during the fiscal year ended June 30, 1875.

Table I, an abstract of seizures of property for violation of internal-revenue laws during the fiscal year ended June 30, 1875.

OUR INTERNAL-REVENUE SYSTEM.

The two principal sources of income to the United States are customs-duties and internal-revenue taxes. The former are levied upon articles the growth or manufacture of foreign countries imported into the United States; the latter are laid, at the present time, principally upon certain commodities manufactured in this country entering largely into con-

sumption, though not to be classed among the necessaries of life, such as distilled spirits, fermented liquors, tobacco, snuff, cigars, &c.

These latter taxes, so far as they are confined to consumable articles, constitute strictly excise duties, a term which is sometimes, though not with strict accuracy, applied to our entire internal-revenue system.

An excise is properly that branch of the public revenue arising from duties paid upon the manufacture or sale of certain commodities made or sold within the country where this system of taxation prevails. It applies solely to consumable commodities made or produced at home, in contradistinction both to customs, which are duties payable on commodities imported from abroad, and to those duties imposed upon the use of certain commodities not immediately consumable, such as taxes upon carriages, gold and silver plate, pianos, watches, &c.

Our system of internal-revenue taxes is broader, therefore, than the excise system, and has embraced, since its origin in 1862, taxation upon occupations and trades; upon sales, gross receipts, and dividends; upon incomes of individuals, firms, and corporations; taxes upon specific articles not consumed in the use; stamp-duties, taxes upon various classes of manufactures, as well as taxation upon legacies, distributive shares, and successions.

Excise duties are not of modern origin by any means. They existed upon the continent of Europe before their introduction into England in 1643, during the sitting of the Long Parliament, in the reign of Charles the First. At first they were imposed with great caution and moderation, and chiefly upon commodities where the burden would be least felt, such as beer and ale, cider, perry, and the like.

With this explanation the terms "excise duties" and "internal-revenue taxes" will be used indiscriminately, as our present system is but an enlargement of the excise law.

A better and more general classification of all taxation (under national authority) would be "external" and "internal" taxes; the one derived wholly from merchandise imported from abroad, the other wholly from taxes laid upon home manufactures, occupations, incomes, licenses, &c.

Direct taxes on lands and excise taxes have followed the three principal wars of the United States: the revolutionary war, that of 1812, and the war of the rebellion.

These forms of taxation have never met with popular favor, and with the exception of the present revenue law have never maintained their footing upon the statute-book for any considerable time. The tax-gatherer from earliest history has been an unwelcome presence, and his business an ungracious one. His office is inquisitorial in its very nature, leading to inquiries into people's affairs, the condition of their business, their losses and gains, matters which most people prefer keeping secret from the public. The process of assessment and collection is summary, involving, in case of delinquency, penalties and sacrifice of property. The tax is a palpable thing to be paid, or some cherished possession is to be sold to meet it. No circumstances of poverty, misfortune, sickness, or death stay the distraint. Injustice in the assessment itself is relievable only by a circuitous process, involving first an application for abatement, next an application for a refund after the tax is paid or collected, and, these being overruled, an appeal to the courts against the collector. Here at last the claimant, who has insisted that he either owed no tax at all, or a tax less than that demanded, collects from the Government what he has compulsorily paid, but frequently at the expense of ruinous delay and sacrifice.

Such a law could not well be popular, and has never been allowed in

our previous history to remain upon the statute-book beyond the exigency which called it into existence.

The imposition of an unaccustomed tax upon any article entering largely into the consumption of the people, has always encountered opposition. The reason is plain, as its effect is immediately seen in the increased price of the article, whatever it is. People do not stop to reason upon the necessity of the tax, but selfishly see only a peremptory interference by Government in the price of the commodity taxed, to that extent impairing their ability to gratify their wants. This opposition is not the less vehement, though the article, like whisky or tobacco, is not to be numbered among the necessaries of life. It is manifested by various devices to evade the odious law, and these failing, by opposing violence to its execution. The officers who are so unhappy as to be the instruments for the collection of the obnoxious tax, are the immediate victims of the people's vengeance.

The earliest law laying duties upon spirits distilled within the United States, went into operation in 1791, and was approved by the first President. Though mild in comparison with the present law, and highly necessary in the then financial condition of the country, it provoked great opposition and resistance. The western counties of Pennsylvania rose in insurrection against its enforcement in 1794. The proclamation of President Washington produced no effect to deter the insurgents. They were organized and drilled, and bade open defiance to the Government, nor did the refractory submit until an army drawn from the militia of different States had marched into the very center of the disturbed district and seized the ringleaders of the insurrection. The cost of this insurrection to the Government was one and a half millions of dollars.

The national debt at that time was seventy-six millions, and the whole amount of the Treasury receipts six millions and a half. Yet the law which led to this insurrection was so framed as to give least cause for opposition. The articles taxed were few, the taxes themselves low, the officers few in number, and the machinery for executing the law as simple as it was possible to make it, consistently with efficiency.

The taxes upon spirits varied according as they were distilled from sugar, molasses, or other foreign materials, or from articles of the growth or product of the United States. The tax in the latter case varied according to the proof of the spirits—from nine to twenty-five cents on the gallon. They were collected at the distillery in money, subject to an abatement of two cents a gallon for present payment, or the distiller, at his election, was permitted to allow them to go into consumption upon bond being given for the payment of the duty.

It is curious to observe how many careful provisions against fraud in the existing law are found in this earliest legislation upon the subject.

In 1792 the law was modified, reducing the duties on spirits distilled from materials the product of the United States, and prohibiting the importation of spirits from foreign ports, except in casks of the capacity of ninety gallons and upward, the obvious intent being to encourage their manufacture in the United States, and thus to increase the revenues of the Government. From this beginning, and under the encouragement of Hamilton, the scope of the law was enlarged, and, by successive enactments, was extended to carriages, snuff, refined sugars, auction-sales, licenses for retailing wine and spirits, and to stamp-duties on bills of exchange, bills of lading, and numerous other instruments. Upon Jefferson's accession to the presidency, and upon his recommendation, the whole system of internal taxes was abolished.

When the war with Great Britain occurred in 1812, it again became

necessary to resort to the collection of internal-revenue duties. On the assembling of Congress in May, 1813, in extra session, President Madison, after stating the receipts and expenditures during the preceding six months, advised Congress to adopt a well-defined system of internal revenue in aid of existing sources. Mr. Gallatin's plan was adopted by Congress, and acts were passed imposing duties on refined sugar, salt, carriages, auction-sales, licenses for distilleries and for retailing wine, spirits, and foreign goods, with stamp-duties on bank-notes, bills of exchange and other notes, which were expected to produce two millions yearly, and a direct-tax on houses, lands, and slaves, at their assessed value, amounting to three millions.

Mr. Monroe, in his first message to Congress, in December, 1817, recommended the repeal of the internal taxes, and early in the session all were abolished except the duty on salt.

The present system of internal taxes originated in the necessities of the Government growing out of the rebellion, when it became necessary to resort to every available source of income to defray the expenses of the war, and to establish the national credit. Accordingly, beginning with the first act of July 1, 1862, an elaborate system of internal taxation was set on foot, which reached nearly every species of manufacture, trade, profession, and occupation, and embraced many articles which were specifically taxed, the incomes of individuals, firms, associations, and corporations, documents of various kinds, thirty-one in number, subjected to a stamp-tax, and laying a heavy hand upon legacies, successions, and the gross receipts of those operating steamboats, ships, barges, canal-boats, stage-coaches, toll-roads, ferries, and bridges, and the gross receipts of railroads, express, insurance, and telegraph companies; upon lotteries, theaters, operas, museums; upon banks and bankers; upon trust-companies, and saving-institutions, and upon occupations, fifty-one in number, requiring licenses from those who carried them on varying from ten dollars ($10) to two hundred dollars ($200.)

It may be doubted whether there ever existed in any country a system of taxation so comprehensive and minute in its details, reaching every man's daily subsistence, and greatly increasing the cost of nearly all the necessaries of life. From the multiplied sources of revenue opened by this law, the Government was enabled to realize in a single year three hundred and ten million nine hundred and six thousand nine hundred and eighty-four dollars and seventeen cents, ($310,906,984.17,) against five million dollars ($5,000,000) which Madison and Gallatin expected to derive from the internal taxes of 1813.

The customs-revenue for the same year, which yielded the enormous tax just stated, was less than one hundred and eighty million dollars, ($180,000,000.) We may search in vain in our own history, or that of other nations, for such an example of patience and patriotism as was exhibited by the people of this country in the payment of these extraordinary burdens. Since the existing system went into operation, and counting from the fiscal year ending the 30th of June, 1863, to the 30th of June, 1875, the close of the last fiscal year, the amount collected under this system has been two billion eighty-six million five hundred and ninety thousand seven hundred and three dollars and eighty-eight cents, ($2,086,590,703.88.)

When to this are added the sums collected from the direct-tax on lands laid in 1861, and the amount derived from customs-duties, we may well feel astonished that the country was not only able to survive such extraordinary burdens of taxation, but even to attain a high degree of prosperity.

The actual amount of receipts into the Treasury from all sources from and after June 30, 1861, to June 30, 1874, inclusive, exclusive of loans and Treasury notes, was as follows:

Customs	$1,973,710,367 91
Internal revenue	1,956,323,725 30
Direct-tax	14,810,189 37
Public lands	22,151,958 02
Miscellaneous	236,084,982 94
Premium on loans and sales of gold coin	192,557,117 46
Total	4,395,638,341 00

Commencing with the year 1866, there has been a continuous repeal going on year by year of such internal taxes as were most oppressive, or at least of such as gave rise to most complaint, until at present but few subjects of taxation remain.

The taxes are now levied upon distilled spirits, fermented liquors, manufactured tobacco, snuff, and cigars; upon articles embraced in schedule A; upon certain occupations; upon bank-checks and the deposits, circulation, and capital of banks.

The following table exhibits the sums collected during the several fiscal years below given ending on June 30, 1875:

Year.	Internal-revenue taxes.	Year.	Internal-revenue taxes.
1863	$41,003,192 93	1871	$144,011,176 24
1864	117,145,748 52	1872	131,770,946 73
1865	211,129,529 17	1873	114,075,456 08
1866	310,906,984 17	1874	102,644,746 98
1867	265,920,474 65	1875	110,545,154 23
1868	191,180,564 28	Supplemental collections*	981,517 64
1869	160,030,344 29		
1870	185,235,867 97	Total	†2,086,590,703 88

* These collections are mostly balances found due the Government from year to year in the settlement of the accounts of such collectors as have retired from office. They are now presented in aggregate for the first time, and are given in detail in the appendix to table D of this report.

† The aggregate amount of internal revenue collected during the several fiscal years from 1863 to 1875, as shown by the figures in the above table, is considerably more than the aggregate amount of internal revenue deposited during the same time, as appears from the books in the office of the Secretary.

The following explanation, it is believed, will satisfactorily account for the discrepancy between the collections and deposits:

Prior to July 1, 1865, collectors of internal revenue were authorized to act as disbursing agents, and to retain in their possession such part of the collections made by them as was necessary to pay the expenses of assessing and collecting. They, therefore, reported to this Office the entire amount collected, and deposited only so much as was not required to defray the aforesaid expenses.

Commissions allowed for the sale of adhesive stamps have always been regarded by this Office as part of its receipts.

Soon after the close of the war, and before the appointment of collectors of internal revenue in the late insurrectionary districts, large collections were made by special Treasury agents on articles produced in those districts and subject to tax under internal-revenue laws, and reported to this Office. Collections thus made by officers other than regularly appointed collectors of internal revenue were probably not regarded as receipts from internal revenue when covered into the Treasury, and were therefore charged to some other account.

From this exhibit it will appear that the amount of revenue collected in 1874 from internal taxes was, in consequence of the duties repealed from year to year, less than during any single year since the system went into operation except the first. The increase during the last fiscal year is owing in part to the increase of duties laid by the act of March 3, 1875, upon distilled spirits, manufactured tobacco, cigars and cigarettes, and in part to the taxes collected under laws repealed, extraordinary efforts having been put forth by this Office to collect the delinquent taxes due from banks and bankers, railroad and other corporations, and taxes due on incomes, legacies, and successions.

It is with pardonable pride that I present the following table, in order to show with what accuracy this Office estimated, one year since, the probable receipts for the fiscal year ending June 30, 1875. It could not be known at that time that Congress would make any increase upon

the objects of taxation, such as was in fact done by the act of March 3, 1875, and omitting the three million two hundred and three thousand eight hundred and eighteen dollars and eighty-five cents ($3,203,818.85) realized between that date and the 30th June, 1875, in consequence of this increase, and two hundred and sixteen thousand and twenty-seven dollars and thirty-four cents ($216,027.34) receipts under the act of May 8, 1872, (which led to the formation of the Sanborn contract,) the receipts into the Treasury exceeded the estimate only one hundred and twenty-five thousand three hundred and eight dollars and four cents, ($125,308.04.)

The aggregate receipts from all sources, exclusive of the tax on the capital, circulation, and deposits of national banks, but including amounts refunded and allowed on drawback and collections made by contract under act of May 8, 1872, were, for the fiscal year ended June 30, 1875		$110,545,154 23
Receipts under act of March 3, 1875	$3,203,818 85	
Receipts under act of May 8, 1872	216,027 34	
		3,419,846 19
Receipts under laws in force prior to March 3, 1875, exclusive of collections made under act of May 8, 1872, all of which collections here reported were made and covered into the Treasury prior to June 30, 1874		107,125,308 04
Estimated receipts in the last annual report		107,000,000 00
Receipts in excess of estimate		125,308 04

In this connection, and to illustrate the table just given, the following statement is furnished showing the receipts under the act of March 3, 1875, up to and inclusive of June 30, 1875, from the different articles subjected to an increased tax:

Statement showing the receipts under act of March 3, 1875, prior to July 1, 1875.

Articles.	Quantities.	Increased rate.	Tax returned.
Distilled spirits.....gallons..	8,898,999 4-15	$0 20	$1,779,799 85
Cigars.....M..	507,075,212	1 00	507,075 21
Cigarettes.....M..	13,986,393	25	3,496 59
Manufactured tobacco.....pounds..	22,836,180	04	913,447 20
Total			3,203,818 85

It will doubtless be matter of surprise that the increased amount realized from distilled spirits during that period (March 3, 1875, to June 30, 1875) was so small. The explanation, however, is found in the fact that it became generally known, through the proceedings in Congress, that an increase in the rate of the tax would probably be made, and distillers, in order to realize the benefit of the increase, withdrew from bonded warehouses, upon payment of the taxes at seventy cents a gallon, 5,430,021 gallons in the month of January, 1874, and the enormous quantity of 11,504,356 gallons in February following, an excess over the previous month of 6,074,335 gallons, and leaving still in the bonded warehouses over seven million gallons of spirits on March 3, 1875, the day when the increase of tax from seventy to ninety cents per gallon was made by Congress.

By law these spirits were allowed, after bond given, to remain in the distillery warehouse one year before withdrawal, and these spirits have been and still continue to be placed on the market subject only to the former duty of seventy cents per gallon. Had these spirits been subjected, like those manufactured after March 3, 1875, to a tax of ninety cents per gallon, the difference in the two rates would have yielded to the Treasury, after their entire withdrawal from bond, at least one

million four hundred thousand dollars, ($1,400,000.) To be sure this difference would not probably all be shown during the last fiscal year, since parties might, under the law, defer the withdrawal from warehouse for one entire year after entry.

An examination into the practical workings of internal-revenue legislation shows that the imposition of an increased tax is not usually followed by an immediate corresponding increase in the amount of revenue collected. While legislation is pending, extraordinary efforts are made by the distiller and manufacturer to secure the benefit of the existing low rate to as large a quantity of their distilled and manufactured product as possible. After the law increasing the rate has gone into operation the market is supplied for a time with the surplus taxed at the low rate, and several months usually elapse before this surplus is exhausted, and the revenue flows again naturally in its accustomed channels.

The case of distilled spirits has already been alluded to. The truth of the preceding observations is also confirmed by a comparison of the receipts from manufactured tobacco for periods immediately prior and subsequent to March 3, 1875, when the rate was raised from twenty to twenty-four cents per pound, with the receipts for the corresponding periods in the preceding fiscal year.

During January and February the receipts were as follows:

Months.	1874.	1875.
January	$1,990,535	$1,378,928
February	1,824,610	3,548,877
Total	3,815,145	4,927,705

The following are the receipts from the same source for the four succeeding months of the two fiscal years:

Months.	1874.	1875.
March	$1,819,202	$1,241,149
April	1,926,423	1,278,301
May	1,865,374	1,693,382
June	1,821,722	1,806,329
Total	7,432,721	6,019,061

Thus at the same rate of tax, but under the stimulus of its prospective increase, one million one hundred and twelve thousand five hundred and sixty dollars ($1,112,560) more were received in January and February, 1875, than during the corresponding period in 1874, while the receipts for the next four months, after the tax had been increased four cents per pound, were one million four hundred and thirteen thousand six hundred and sixty dollars ($1,413,660) less than the receipts for the last four months of the preceding fiscal year.

BRITISH EXCISE SYSTEM.

Having spoken of the origin in Great Britain of the excise system in 1643, it may be interesting to know the sources of her present income under the excise laws, which, however, are undergoing frequent modifications from year to year, and to note the identity of the subjects of taxation with those in this country before our internal-revenue system had been reduced to its present limits. The following two tables, save the last column in each, showing the reduction of pounds sterling to money of the United States, are taken from the statistical abstract of

the United Kingdom presented to both Houses of Parliament by command of Her Majesty, and show the product of the excise laws for the fiscal year of that government ending March 31, 1875.

Statement showing the amount of revenue collected from excise in the United Kingdom during the year ended March 31, 1875, expressed in pounds sterling and in United States money, the value of the pound sterling being $4.86½, as estimated by the Director of the Mint and proclaimed by the Secretary of the Treasury January 1, 1875.

Articles.	Pounds sterling.	Money of the United States.
Spirits	£14, 895, 768	$72, 490, 254 97
Malt	7, 746, 740	37, 699, 510 21
Licenses	3, 499, 756	17, 031, 502 58
Other receipts	1, 111, 868	5, 410, 965 62
Total	27, 254, 132	132, 632, 233 38

Statement showing the amount of revenue collected from stamps in the United Kingdom during the year ended March 31, 1875, expressed as in the preceding table.

Denominations.	Pounds sterling.	Money of the United States.
Deeds and other instruments	£1, 995, 792	$9, 712, 521 77
Probates of wills	2, 153, 797	10, 481, 453 10
Legacies and successions	3, 400, 375	16, 547, 924 94
Insurance, marine	124, 734	607, 018 01
Bills of exchange, bankers' notes, and composition for duty on bills and notes.	1, 044, 496	5, 083, 039 78
Receipts and drafts	747, 301	3, 636, 740 32
Other receipts	1, 081, 234	5, 261, 825 26
Total	10, 547, 729	51, 330, 523 18

It may be some consolation to know that, grievous as are our burdens laid upon such of our population of forty-two millions or more as consume the articles taxed by our internal-revenue laws, the British public, numbering less by one-fourth than our people, paid, under their excise laws, during the year ending March 31, 1875, taxes, measured by gold of the United States, to the amount of one hundred and eighty-three million nine hundred and sixty-two thousand seven hundred and fifty-six dollars and fifty cents, ($183,962,756.56,) against one hundred and ten million five hundred and forty five thousand one hundred and fifty-four dollars and twenty-three cents, ($110,545,154.23,) paid in currency by the people of this country during the fiscal year which ended June 30, 1875. This comparison, if it does not reconcile such as find fault with our system as oppressive and vexatious, should modify their complaints, since it is apparent that a given amount of taxes from some source must, under all circumstances, be raised to defray the necessary expenses of Government, to discharge its obligations, and maintain the public credit. At best, it is but a choice of means, and all reasonable men will agree that, in laying taxation, articles of luxury should be preferred to articles of necessity, and that the tax should be placed upon the product in the hands of the manufacturer or producer, so that, as in case of customs-duties, it is left matter of choice who shall re-imburse the manufacturer or importer the taxes he has paid.

NET AMOUNTS OF RECEIPTS FROM ALL SOURCES OF INTERNAL REVENUE DURING THE LAST FISCAL YEAR IN THE SEVERAL STATES AND TERRITORIES.

Your attention is invited to the interesting recapitulation of receipts from all sources of internal revenue during the last fiscal year in the dif-

ferent States and Territories, found in Exhibit A, on page 95. From this it appears that, deducting amounts refunded, the net total of receipts was as follows:

In Alabama	$111,816 41
Arizona	10,263 06
Arkansas	71,823 39
California	2,983,595 19
Colorado	70,531 82
Connecticut	622,225 53
Dakota	10,040 18
Delaware	360,331 03
District of Columbia	111,027 97
Florida	184,547 31
Georgia	387,154 12
Idaho	19,136 00
Illinois	17,627,668 55
Indiana	4,650,883 13
Iowa	1,040,064 15
Kansas	133 535 94
Kentucky	9 022,636 66
Louisiana	83,151 85
Maine	107 261 90
Maryland	2,755,845 40
Massachusetts	2,670 491 15
Michigan	1,930,506 05
Minnesota	228,362 45
Mississippi	96,085 38
Missouri	4,591,856 77
Montana	23,666 10
Nebraska	292,472 30
Nevada	53,147 30
New Hampshire	298,812 80
New Jersey	2,362,478 29
New Mexico	21,965 52
New York	15,200,898 34
North Carolina	1,629,994 37
Ohio	14,656,295 30
Oregon	47,939 64
Pennsylvania	6,149,954 40
Rhode Island	231,767 50
South Carolina	120,818 00
Tennessee	858,910 50
Texas	257,448 37
Utah	31,545 51
Vermont	58,251 85
Virginia	7,659,639 97
Washington	21,146 60
West Virginia	508,684 38
Wisconsin	2,720,868 14
Wyoming	11,942 11

The results thus shown do *not* indicate that the States paying the largest amounts of internal revenue pay in proportion to their relative population or wealth; nor that the consumption of their tax-paid commodities within their limits is in proportion to the amount produced; nor that they excel in general manufacturing enterprise. On the contrary, they rather show that whisky is distilled in largest degree in the great corn-growing districts, brandies in the fruit districts, and that fermented liquors are brewed in sections of the country where barley most abounds, or in centers where that portion of our foreign population who prefer them as a beverage are found in largest numbers; and that tobacco, cigars, &c., are manufactured principally in or near the tobacco-growing regions. Large cities, fortunate in their location as accessible from all parts of the country by water and rail, constitute an exception

to the general rule, since the manufacture of the raw materials is carried on largely there, without much reference to the localities where those materials are produced, unless, indeed, the cost of transportation on bulky articles entering into the manufacture prove a hinderance to successful competition with the rural districts. New York is a notable example, yielding last year fifteen millions of revenue. It is neither a great corn nor tobacco growing State. The city of New York is the point where most of the excisable commodities are produced, except whisky. This is not made to any extent, on account of the cost of bringing corn from the West, and the difficulty of successful competition with Cincinnati, Saint Louis, Chicago, and Milwaukee in the manufacture of that article.

Statement showing the number of distilleries registered and operated during the fiscal year ending June 30, 1875.

States and Territories.	Grain.		Molasses.		Fruit.		Total number registered.	Total number operated.
	Number registered.	Number operated.	Number registered.	Number operated.	Number registered.	Number operated.		
Alabama	2	2			70	67	72	69
Arizona	0	0			0	0	0	0
Arkansas	2	2			13	8	15	10
California	5	5			189	185	194	190
Colorado								
Connecticut	4	4			78	71	82	75
Dakota								
Delaware					39	39	39	39
Georgia	22	21			401	398	423	419
Idaho	1	1					1	1
Illinois	43	43			61	58	104	101
Indiana	23	22			109	100	132	122
Iowa	6	5			14	12	20	17
Kansas	0	0			7	7	7	7
Kentucky	212	210			600	593	812	803
Louisiana	5	2			0	0	5	2
Maine								
Maryland	9	9			38	36	47	45
Massachusetts	2	2	6	6	26	26	34	34
Michigan	1	1			0	0	1	1
Minnesota	0	0			0	0	0	0
Mississippi	0	0			6	5	6	5
Missouri	22	21			117	113	139	134
Montana	0	0			0	0	0	0
Nebraska	1	1			0	0	1	1
Nevada	0	0			0	0	0	0
New Hampshire	0	0	1	1			1	1
New Jersey	0	0			165	163	165	163
New Mexico	0	0			4	3	4	3
New York	7	7			82	82	89	89
North Carolina	91	79			570	561	661	640
Ohio	45	45			77	75	122	120
Oregon	0	0			4	3	4	3
Pennsylvania	75	73			82	80	157	153
Rhode Island								
South Carolina	2	2			84	83	86	85
Tennessee	55	53			362	359	417	412
Texas	5	2			38	34	43	36
Utah	0	0			0	0	0	0
Vermont					5	4	5	4
Virginia	38	33			658	649	696	682
Washington	0	0			1	1	1	1
West Virginia	1	1			139	129	140	130
Wisconsin	10	10			1	1	11	11
Total	669	656	7	7	4,040	3,945	4,736	4,608

The following statement shows the number of grain and molasses distilleries in operation at the beginning of each month during the fiscal year ending June 30, 1875:

Months.	Number of distilleries.		Capacity of grain-distilleries.		Capacity of molasses-distilleries.		Total spirit-producing capacity.
	Grain.	Molasses.	Bushels.	Gallons.	Gallons.	Spirits.	
July	250	7	44,729	158,396	7,679	6,550	164,946
August	151	6	39,333	137,984	9,038	7,683	145,667
September	151	7	43,718	159,318	10,426	8,862	168,180
October	171	5	54,139	192,010	7,708	6,551	198,561
November	219	7	60,915	218,146	8,698	7,393	225,539
December	248	7	69,858	248,777	8,563	7,277	256,054
January	318	7	73,300	271,148	9,934	8,443	279,591
February	349	7	72,951	252,335	9,935	8,444	260,779
March	400	6	82,062	288,632	8,453	7,185	295,817
April	417	7	67,475	242,082	8,126	7,076	249,158
May	380	7	67,348	227,970	9,868	8,386	236,356
June	269	7	39,213	139,685	7,822	6,650	146,335

Statement showing the receipts from the several sources relating to distilled spirits for the fiscal years ended June 30, 1874 and 1875, together with the increase or decrease from each source.

Sources.	Receipts for fiscal year 1874.	Receipts for fiscal year 1875.	Increase.	Decrease.
Spirits distilled from apples, peaches, or grapes	$536,681 41	$1,265,896 46	$729,215 05	
Spirits distilled from materials other than apples, peaches, or grapes	43,270,412 29	45,612,041 64	2,341,629 35	
Wine made in imitation of champagne	151 00	18 00		$133 00
Rectifiers	287,825 92	249,591 11		38,234 81
Dealers, retail-liquor	4,321,505 35	4,086,393 77		235,111 58
Dealers, wholesale-liquor	596,555 45	534,839 20		61,716 25
Manufacturers of stills	945 01	1,837 92	892 91	
Stills or worms manufactured	2,500 00	2,890 00	390 00	
Stamps for distilled spirits intended for export	12,795 50	782 60		12,012 90
Stamps, distillery-warehouse	116,909 30	102,483 30		14,426 00
Stamps, rectifiers'	156,730 80	148,283 80		8,447 00
Stamps, wholesale-liquor-dealers'	61,327 65	61,603 50	277 85	
Articles and occupations relating to spirits formerly taxed but now exempt	79,750 17	15,327 82		64,422 35
Total	49,444,089 85	52,081,991 12	3,072,405 16	434,503 89

Net aggregate increase, $2,637,901.27.

Since the institution of our excise system spirits have been the largest source of revenue derived from any species of manufacture. It is so in other countries. In all, where the system prevails, spirits head the column as the first commodity thought to be a proper subject of taxation and as yielding the largest revenue.

The receipts from this and kindred sources, such as special taxes paid by rectifiers, wholesale and retail liquor-dealers, manufacturers of stills, &c., have greatly varied during the thirteen years the law has been in force, according as the tax was high or low, or fixed at that medium rate which did not prohibit general consumption or offer too much temptation to illicit distilling, and according as the law was vigorously or loosely administered. The amount of spirits actually consumed has not greatly varied during these years, notwithstanding the changes in the law fixing the amount of the tax; and this fact has been one of

the standing arguments in favor of taxing distilled spirits not only here, but in other countries, viz, that the amount consumed does not depend to any considerable extent upon the rate of tax imposed. The demand is as steady as the appetite to be fed is fixed and exacting. Excessive taxation may be the cause of general and systematic fraud, leading to great loss of revenue, but production and consumption go on as before, whatever the taxes. This is well illustrated in the years while the tax was $2 on the gallon. Take for illustration the year 1868. The taxes derived from this source during that year were less than $19,000,000, while in 1869, when the rate was reduced to 50 cents, they ran up to $45,000,000, and the year following to $55,000,000. Yet no one can doubt that the actual production in gallons did not essentially differ in the years named. Looking over the entire period since duty upon spirits was first imposed by the act of July 1, 1862, when Congress moved with the same timidity and moderation in taxing this article that characterized its action in 1791, when the experiment was first made, we are struck with surprise at the great difference in the receipts from the sources named. Thus—

The collections during the fiscal year ending June 30, 1863, were					.....	$5,176,530 50
"	"	"	"	1864,	"	30,329,149 53
"	"	"	"	1865,	"	18,731,422 45
"	"	"	"	1866,	"	33,268,171 82
"	"	"	"	1867,	"	33,542,951 72
"	"	"	"	1868,	"	18,655,630 90
"	"	"	"	1869,	"	45,071,230 86
"	"	"	"	1870,	"	55,606,094 15
"	"	"	"	1871,	"	46,281,848 10
"	"	"	"	1872,	"	49,475,516 36
"	"	"	"	1873,	"	52,099,371 78
"	"	"	"	1874,	"	49,444,089 85
"	"	"	"	1875,	"	52,081,991 12
Showing a sum-total of receipts from spirits of.....						$489,763,999 14

It will be seen from this table that the receipts during the last fiscal year were essentially the same as in 1873, and greater than during any other year except 1870, when they reached $55,606,094.15. At the present rate of tax, fixed by Congress on the 3d of March last, it is estimated that the receipts during the present fiscal year will exceed those of any year which has gone before.

It is proper to state in this connection that the rate of tax on distilled spirits has been fixed by Congress, from time to time, as follows: By act of July 1, 1862, at twenty cents per gallon; by act of March 7, 1864, at sixty cents; by act of June 30, 1864, at one dollar and fifty cents; by act of December 22, 1864, at two dollars; by act of July 20, 1868, at fifty cents; by act of June 6, 1872, at seventy cents; by act of March 3, 1875, at ninety cents.

So far as we may judge by the increased receipts over corresponding months of 1874, the present tax may be enforced with great profit to the revenue, notwithstanding the large amount of whisky on the market when the last rate was fixed, which had paid but seventy cents, and the large amount in bond on March 3, which is subject to the old rate, and which has not yet been exhausted.

WHISKY FRAUDS—HOW THEY HAVE BEEN COMMITTED—PRECAUTIONS TAKEN AGAINST THEIR RECURRENCE—THEIR EXTENT—ADDITIONAL LEGISLATION RECOMMENDED.

Public attention has been often called, within the past few months, to extensive frauds committed in certain localities upon the revenue

by distillers and rectifiers of distilled spirits. I propose, briefly as I can, to give an account, first, of the checks, guards, and protections against frauds established by law; second, of the manner in which "whisky frauds," so called, lately exposed, were perpetrated upon the Government; third, of the extent of these frauds; fourth, of the checks recently established to prevent a recurrence of the same; and, fifth, to suggest the legislation which, in my opinion, is necessary to insure a fuller collection in the future of taxes upon distilled spirits.

I. The system of surveillance now in force at all distilleries, to insure that none of the product may escape taxation, is based upon the presumption that all local officers are honest. Where such is the case it works admirably, and insures the collection of tax upon every gallon of spirits produced by the distiller. It could hardly be expected, however, that among over twenty-three hundred store-keepers and gaugers some would not prove dishonest, especially since there is always near them, in the person of the distiller, if he happen to be an unscrupulous man, a tempter to move them by bribes.

In order, therefore, to effectually prevent fraud, it is necessary to establish a system that shall surely detect it, and that shall be followed by certain and severe penalties. With the distiller it is a matter of dollars and cents, so that, if the risk in committing fraud is made so great that it does not *pay*, he will not only be honest himself, but will inform on others as a matter of self-protection.

The present system may be described briefly as follows: A store-keeper is assigned to every distillery, whose duty it is to record the time of filling and emptying every mash-tub, to weigh every pound of grain that is used in the mash, and to see that the law is strictly complied with. The cistern-room, where the spirits are received, is placed in charge of a gauger, who determines the exact quantity produced, and the gauge of each barrel into which the spirits are drawn. The pipes from the still to the cistern-room are continuous, so that the distiller has no access to the spirits until after they are gauged and the quantities determined. Each barrel filled in the cistern-room must be serially numbered, beginning with No. 1, and running consecutively without duplication. A warehouse-stamp must then be affixed to the barrel, which stamp has also a serial number, never duplicated, and shows the number of barrel, contents in proof and wine gallons, name of gauger, and date of affixing. The barrel so marked is then placed in a warehouse on the distillery premises, where it can remain not to exceed one month without a warehousing-bond, or not to exceed one year when such a bond is given. When the package is to be withdrawn, the collector furnishes, on application and after payment of the tax, a tax-paid stamp, which is filled in with the same number of package, proof and wine gallons, as appears on the warehouse-stamp, and has itself another distinctive serial number, which is never duplicated. The package of spirits is now ready for market, and is so fully marked and branded as to enable any revenue-officer to identify it wherever found, since no other package can exist legally with the same numbers, marks, and brands.

The distiller is required to keep a book, in which he records a full description of each package, specifying all the marks and brands above specified, and the name of the party to whom each package is sold. The purchaser is required to keep a book, which records a like description of the package, and states both from whom it was purchased and to whom *he* sells it. A complete record is thus kept of the whereabouts

of each package of spirits until it is dumped for rectification or reaches the consumer.

The system of checks, as applied to rectifiers, is as follows: A rectifier is permitted to rectify spirits bought by him, and place the same upon the market under a rectifier's stamp. When he purchases the spirits, and is ready to dump for rectification, he makes out a full description of the packages, giving all serial numbers, date of original gauge, and name of distiller producing the spirits, and sends a notice of intention to rectify the same to the collector, who at once details a gauger to examine and regauge the spirits. It is this gauger's duty, also, to see the packages emptied and the stamps destroyed; and to certify the fact on the face of the rectifier's notice. An account is opened with each rectifier, in which he is credited with the total proof gallons of spirits so dumped, and charged with the total proof gallons covered by rectifiers' stamps placed on spirits gauged out of his establishment. The collector is not allowed to issue rectifiers' stamps for a number of proof gallons in excess of the number reported as dumped by the rectifier and gauger, as above indicated.

It is thus apparent that, if all officers were honest, the above-described checks would effectually prevent any spirits being sold in the market that had not paid the proper tax.

II. To perpetrate fraud, the distiller must first obtain the consent of the store-keeper to use more grain than his survey calls for. It has been proven by experience that a fermentation that will produce the *largest yield* of spirits from grain cannot be made in less than forty-eight hours. The regulations, therefore, allow this time for fermentation, and forbid more than one filling of the tubs in seventy-two hours; thus requiring the tub to remain empty for twenty-four hours. If, however, the distiller will prepare what is known as "quick-yeast," he is enabled to complete a fermentation in twenty-four hours, or less time, though with a loss of yield in spirits. This he can well afford, if he can sell half his product without tax. Having gained the consent of the store-keeper, who keeps his books as if the law were being complied with, the distiller makes two fermentations where one is allowed, and then has nearly double the quantity of spirits that the books show produced. The distiller who has this illicit product on hand does not dare place it upon the market in the only way possible, that is, by the re-use of stamps, since the detection of a single package so duplicated would subject him to the severe penalties of the law. He must, therefore, call to his assistance the rectifier, who, even if detected, is dealt with much more leniently by the law, while the difficulties in detecting him are much greater than with the distiller.

To make the transfer of the illicit spirits from the distillery to the rectifying-house, the gauger in charge of the cistern-room must either permit barrels to be filled and surreptitiously removed without stamps, or he must affix stamps which have been once used. If the spirits were removed to the rectifying-house without stamps, no notice of rectification describing the same could be sent to the collector, and, therefore, no credit could be had by which to obtain rectifiers' stamps.

Two methods of placing illicit spirits upon the market have been in vogue:

1st. The first was made possible by the fact that rectifiers' stamps have heretofore been so prepared that each stamp could protect any number of gallons which the gauger chose to fill in. This character of fraud will be best indicated by an illustration. A certain rectifier buys from a distiller, say, one hundred packages of tax-paid spirits, contain-

ing, say, forty proof-gallons each. He files with the collector the descriptive notice above-mentioned, and asks for the issue of rectifiers' stamps to cover four thousand (4,000) gallons of spirits after rectification. A gauger is detailed to gauge these spirits out of the rectifying-tubs, carrying with him a book of blank stamps, to be filled up according to the contents of each package. The gauger reports, on a prescribed form, that the rectifier has placed the four thousand gallons in, say, four hundred packages, containing ten gallons each, and returns the stubs of the stamps filled up in accordance with this statement. The packages so represented are afterward found to contain, say, eighty gallons each, and the stamps thereon are filled up in accordance therewith, so that, in fact, only fifty of the stamps were used to cover the "straight spirits," and, under cover of the remaining three hundred and fifty, twenty-eight thousand (28,000) gallons of illicit spirits are placed upon the market. This case is by no means an extreme one, but is a fair example of what was the constant practice in the districts herein specified.

2d. The other favorite method may be illustrated as follows:

The distiller sends to the rectifying-house a number of barrels of spirits upon which the tax has been regularly paid. The descriptive notice aforesaid is filed and a gauger detailed, who reports the stamps destroyed, whereas the fact is that the stamps are not actually destroyed. Either the packages with the stamps uncanceled are returned to the distiller and refilled with illicit spirit, or the stamps are removed and placed by the distiller or rectifier on other barrels of spirits upon which no tax has been paid. These barrels are sent to the rectifier, and by him shipped to some distant market without making any record of the transaction on his Government books. A modification of this form of fraud consists in the rectifier's filing a purely fictitious notice, containing a description of spirits which he has never received, and emptying in place thereof an equal quantity of illicit spirits.

In one of the two ways above described all the frauds recently discovered have been committed, and the Government has lost thereby at least four million dollars in the last two years. The frauds have mainly been carried on at four places, namely: Saint Louis, Milwaukee, Chicago, and Evansville, and all at distilleries producing what is known as "high-wines." This class of spirits does not require ageing, as does the fine sour-mash whisky made for drinking purposes. It consequently does not excite suspicion to find high-wines on the market to-day that were produced yesterday. This rapid transfer from distillery to the market affords facilities for re-use of stamps, which are scarcely feasible with the whiskies that require a year's warehousing before being ready for market, since it would be *prima-facie* evidence of fraud if a distiller of fine whiskies would not take advantage of the year which the Government allows his spirits to remain in warehouse without payment of tax. If once in warehouse, the Government is sure of its tax; hence the comparatively small amount of fraud discovered in places producing fine whiskies. As a further reason why fraud in these whiskies cannot be perpetrated, it may be stated that as a rule they do not require rectification, and the frauds above indicated cannot be committed without the aid of a rectifier.

III. As an indication of the extent of the frauds above described, I have the honor to report that documentary evidence is in possession of this Office which has warranted the seizure of twenty-four distilleries and thirty-seven rectifying-houses, and implicated over fifty United States gaugers and store-keepers. This evidence also shows the issue between

July 1, 1874, and May 1, 1875, of fraudulent spirits by the duplication of twenty thousand (20,000) packages, containing probably one million two hundred thousand (1,200,000) proof-gallons, and, by the aid of false gauging, to the additional amount of one million proof-gallons. This, of course, is but a portion of the fraud actually committed, but in itself indicates the loss of tax to the Government in ten months to an amount not less than sixteen hundred and fifty thousand dollars, ($1,650,000.)

IV. The checks which have lately been established to prevent the recurrence of such frauds as I have described are as follows:

1st. As before stated, every barrel of spirits produced at a distillery has a serial number, which is never duplicated. An account has been opened with each distiller, in which is entered the serial number of every package of spirits produced by him. As fast as reports of rectifiers are received showing the dumping of these packages, the serial numbers are checked off and an entry made showing the date of emptying and the name of the rectifier. Transcripts have been required monthly from the books of every distiller, rectifier, and wholesale liquor-dealer in the United States, containing full descriptions of the spirits purchased and sold by them. Complete abstracts are made from the transcripts, so that all the spirits of each distiller, as found in the several markets of the country, are condensed into one account monthly. These abstracts are then compared with the records showing spirits dumped by rectifiers, so that if spirits are placed upon the market after they are reported dumped, the fraud will be discovered at once. So perfect and unerring is this system that, although the spirits may have passed through several hands, there is no trouble in fixing the guilt where it belongs. This prevents the reuse of stamps, which I have heretofore described as the second method of committing frauds.

2d. To aid still further in preventing this character of fraud, this Office has lately adopted new regulations in regard to the use of tax-paid stamps, by which a portion of the stamp is *cut out* at the time of dumping and returned with the gauger's report. This effectually destroys the stamp and prevents its re-use, while at the same time a sufficient amount of the engraving is shown upon the slip to determine whether the stamp is genuine.

3d. To prevent what I have described as the first class of frauds, namely, removing spirits to the rectifying-house without stamps, and disposing of the same by filling stubs of rectifiers' stamps with a small number of gallons and the stamp with a much greater number, the following check has lately been adopted: A new series of rectifiers' stamps has been issued, in which each stamp has printed upon its face the number of gallons the package contains, so that the stub must necessarily show the same thing. Every gallon of spirits for which a rectifier's stamp is issued must of necessity be returned by the gauger and charged to the rectifier. It is, therefore, impossible for him to get rid of illicit spirits, even if he succeed in removing them from the distillery to the rectifying-house.

4th. As a further check upon frauds such as I have described, the vigorous prosecution of the bondsmen of more than forty store-keepers and gaugers for the forfeiture of the full penalty of the bond, which has been set on foot, will do much to make such officers honest.

V. With regard to additional legislation required to enforce the honest collection of tax on distilled spirits, I give it as my opinion that the only law necessary is one that shall make the requirements as stringent and the penalties for defrauding the Government as severe in the case of the rectifier as they now are in the case of the distiller. The

rectifier should be required to give a bond in an amount equal to the tax represented by all the spirits he can possibly rectify each month. The house and tract of land upon which the establishment is located should be forfeited to the United States in case of fraud. He should not be allowed to handle any spirits at his rectifying-house except those he purchases for rectification and sells under rectifiers' stamps.

Under the present system of detecting frauds, at least thirty days must elapse before the discovery could be made and the guilt fixed. As the apparatus in a rectifying-house capable of refining a quantity of spirits upon which the tax would amount to one hundred thousand dollars a month may not be worth more than ten thousand dollars, it will readily be seen that under the present law, which only forfeits the apparatus and spirits owned by him at the time of seizure, a rectifier may aid in defrauding the Government of one hundred thousand and forfeit only ten thousand dollars. By absconding to a foreign country he also escapes the criminal punishment.

I have also to suggest that the law now in force in regard to returns to be made by rectifiers is so indefinite, that some legislation is needed to enforce the regulations of the Commissioner.

I also think it would be better if rectifiers, distillers, and wholesale liquor-dealers were required to make transcripts of their books monthly, instead of this labor being performed by local officers, as it is at present. It would also relieve officials of an immense amount of labor, and would accomplish the more important result of preventing the destruction of books by parties about to be detected in fraud. There would then be a sworn copy in this Office, that would always be admissible evidence in courts against the guilty parties.

I am firmly of the opinion that the present large tax upon distilled spirits can be collected with but small loss. This opinion is based upon the fact that every store-keeper, gauger, and employé who is connected with the distillery where fraud is perpetrated becomes a pensioner upon the distiller. If, therefore, distillers be kept under such strict surveillance that the amount of money gained by fraud is not sufficient to pay a large corps of officers and workmen in necessary collusion with them to consummate the fraud, they will, as a matter of policy, be honest.

Statement showing the receipts from all sources relating to fermented liquors during the fiscal years ended June 30, 1874 and 1875, with the decrease from each source.

Sources.	Receipts for fiscal year 1874.	Receipts for fiscal year 1875.	Decrease.
Fermented liquors, tax of $1 per barrel on	$8,880,829 68	$8,743,744 62	$137,085 06
Brewers' special tax	245,212 47	226,423 44	18,789 03
Dealers in malt-liquors' special tax	178,637 57	173,836 35	4,801 22
Total	9,304,679 72	9,144,004 41	160,675 31

The number of brewers engaged in the manufacture of fermented liquors during the fiscal year ended June 30, 1875, was two thousand seven hundred and eighty-three, (2,783,) distributed as follows:

Alabama	4
Alaska	1
Arizona	6
Arkansas	1
California	202
Colorado	27
Connecticut	27

Dakota	7
Delaware	2
District of Columbia	15
Florida	—
Georgia	2
Idaho	9
Illinois	165
Indiana	109
Iowa	141
Kansas	47
Kentucky	36
Louisiana	15
Maine	10
Maryland	76
Massachusetts	47
Michigan	199
Minnesota	105
Mississippi	—
Missouri	113
Montana	25
Nebraska	27
Nevada	41
New Hampshire	6
New Jersey	92
New Mexico	9
New York	393
North Carolina	—
Ohio	210
Oregon	26
Pennsylvania	235
Rhode Island	6
South Carolina	2
Tennessee	2
Texas	44
Utah	18
Vermont	2
Virginia	9
Washington Territory	14
West Virginia	15
Wisconsin	232
Wyoming	9
Total	2,783

STAMPS ISSUED—THEIR EFFICIENCY AS A MEANS OF COLLECTING REVENUE.

Discoveries of extensive frauds upon the Government in the manufacture and sale of distilled spirits which have been made during the past year have not weakened the confidence of this Office in the stamp system, by which most of the internal revenues of the country are now collected, but, on the contrary, have clearly demonstrated the fact that frauds of any magnitude cannot be perpetrated without the collusion of revenue officials.

During the fiscal year ending June 30, 1875, as will appear from detailed statements hereto annexed, there were issued by this Office—

Beer-stamps	30,770,640
Tobacco, cigar, and cigarette stamps	231,554,517
Stamps for distilled spirits	4,563,620
Special-tax stamps	689,416
Documentary and proprietary stamps	452,350,688
Representing an aggregate value of	$125,699,619 54

The work of preparing, counting, and issuing these stamps, and keeping the accounts appertaining thereto, is one of great magnitude, but has been attended without the loss of a stamp.

Since I assumed the duties of the Office, I have, with your approval, terminated contracts for printing certain kinds of stamps, and after due advertisement for proposals new contracts have been entered into, which will result in saving to the United States several thousand dollars per annum; and it is believed that the interests of the Government are afforded equal protection under the new as under the old contracts.

The act of July 20, 1868, empowered the Secretary of the Treasury and the Commissioner of Internal Revenue to alter, renew, or change the form, style, and device of any stamp, mark, or label used under any provision of the laws relating to distilled spirits, tobacco, snuff, and cigars, when, in their judgment, necessary for the collection of revenue-tax or the prevention or detection of frauds therein, and to publish regulations for the use of the same.

But it was provided that in no case should such renewal or change extend to an abandonment of the general character of the stamps, nor to the dispensing with any provisions requiring that the stamps should be kept in book-form and have thereon the signatures of revenue officers.

This law obviously contemplated that no change should be made in the material of the stamps, and excluded the adoption of metallic stamps.

But on the 6th of June, 1872, Congress authorized the Commissioner to make such change in stamps and to prescribe such instruments or other means for attaching, protecting, and canceling stamps for the articles above enumerated, or any of them, as he and the Secretary might approve. Under this act it was claimed, and probably with justice, that said officers possessed the power to substitute metallic for adhesive stamps, in their discretion. In other words, it was insisted that the act of 1872 repealed so much of the act of 1868 as limited the discretion of the officers named, in the changes they should adopt, to paper or adhesive stamps, and that this intent of Congress was disregarded in the Revised Statutes, which went into force on the 1st day of December, 1873, since both acts were carried into the revision, and now constitute sections 3445 and 3446. It is apparent in reading these sections that the power conferred by the act of 1872 is completely neutralized by the re-enactment of the law of 1868, now found in said 3446th section, and no discretion is left as to the material to be employed in the stamps.

I think the attention of Congress should be called to this apparent error in the revision, and that if it be the sense of the law-making power either that the material of any class or classes of the stamps should be changed, or that the discretion to change the material should be lodged, as before, in the Secretary and Commissioner, it will be necessary to restore the law as it was before the adoption of the Revised Statutes.

ABSTRACT OF CASES COMPROMISED.

The whole number of cases compromised, as provided under section 102, act of July 20, 1868, during the fiscal year ended June 30, 1875, was 744.

Amount of tax accepted	$84,303 18
Assessed penalty fixed by law	688 34
Specific penalty, in lieu of fines, penalties, and forfeitures	71,585 34
Total amount received by compromise	156,576 86

ABSTRACT OF REPORTS OF DISTRICT ATTORNEYS FOR THE FISCAL YEAR 1875.

Suits commenced.

Number of criminal actions	4,959
Number of civil actions *in personam*	998
Number of actions *in rem*	376
Whole number commenced	6,333

Suits decided in favor of the United States.

Number of criminal actions	1,970
Number of civil actions *in personam*	450
Number of actions *in rem*	207
Whole number of suits decided in favor of the United States	2,627

Suits decided against the United States.

Number of criminal actions	657
Number of civil actions *in personam*	41
Number of actions *in rem*	27
Whole number of suits decided against the United States	725

Suits settled or dismissed.

Number of criminal actions	1,428
Number of civil actions *in personam*	311
Number of actions *in rem*	68
Whole number of suits settled or dismissed	1,807

Suits pending July 1, 1875.

Number of criminal actions	5,592
Number of civil actions *in personam*	1,841
Number of actions *in rem*	343
Whole number of suits pending July 1, 1875	7,776

Amount of judgments recovered by the United States in criminal actions	$291,901 03
Amount of judgments recovered by the United States in civil actions *in personam*	650,579 33
Amount collected on judgments and paid into court in criminal actions	44,325 20
Amount collected on judgments and paid into court in civil actions *in personam*	139,739 27
Amount collected on judgments and paid into court in actions *in rem* or proceeds of forfeiture	31,461 09

Abstract of seizures.

Seizures of property for violation of internal-revenue law during the fiscal year ended June 30, 1875, were as follows:

602,210 gallons of distilled spirits, valued at	$521,351 46
1,289 barrels of fermented liquors, valued at	7,098 75
2,211¼ pounds of snuff, valued at	1,103 12
26,870 pounds of tobacco, valued at	9,237 37
1,229,389 cigars, valued at	14,897 63
Miscellaneous property, valued at	930,959 80
Total value of seizures	1,484,648 13

COLLECTORS—SCALE OF SALARIES.

The maximum compensation allowed by law to collectors is fixed at four thousand five hundred dollars ($4,500) per annum. By an act of Congress passed at the last session you are authorized, on the recommendation of this Office, to make allowances to collectors, from time to time, such as you shall deem just and reasonable, to be governed, however, by two principles, the territorial extent of their districts and the amount of duties collected by them. These allowances extend to clerk-hire, stationery, advertising, postage, furniture, fuel, and light, as well as to allowances to deputy collectors. Under the power conferred, the following schedule has been formed, and constitutes, during the present fiscal year, the compensation allowed to collectors for their personal services and responsibilities:

For collection of—				
$25,000 or less				$2,000
25,000	to	$37,500—	$12,500	2,125
37,500	to	50,000—	12,500	2,250
50,000	to	75,000—	25,500	2,375
75,000	to	100,000—	25,000	2,500
100,000	to	125,000—	25,000	2,625
125,000	to	175,000—	50,000	2,750
175,000	to	225,000—	50,000	2,875
225,000	to	275,000—	50,000	3,000
275,000	to	325,000—	50,000	3,125
325,000	to	375,000—	50,000	3,250
375,000	to	425,000—	50,000	3,375
425,000	to	475,000—	50,000	3,500
475,000	to	550,000—	75,000	3,625
555,000	to	625,000—	75,000	3,750
625,000	to	700,000—	75,000	3,875
700,000	to	775,000—	75,000	4,000
775,000	to	850,000—	75,000	4,125
850,000	to	925,000—	75,000	4,250
925,000	to	1,000,000—	75,000	4,375
1,000,000 and upward				4,500

GAUGING AND GAUGERS' FEES.

I desire to call your attention to the subject of gauging, and to suggest some changes which I deem of great importance. I have been constrained lately to modify the scale of fees regulating the pay of gaugers, with a view to economy, as the expense connected with this branch of the service has seemed to me too great. The difficulty in making a scale of fees which shall be uniform and apply equitably to all these officers, whose duties and compensation vary according to their localities and the amount of work to be done, and the time spent in reaching distant distilleries, is very great. Under the scale of fees established by my predecessor, the first five hundred gallons of spirits gauged in any month was paid for at the rate of ten cents per gallon, provided the limit of six dollars per day was not exceeded. Experience has proved that a gauger can easily gauge from fifteen hundred to two thousand gallons in one day, so that it frequently happened in districts having only a small quantity to be gauged that the large fees prescribed for the first five hundred gallons were earned in one day, and, in order to come within the six dollars limit, the gauger would secure five-gallon packages to be gauged on a sufficient number of subsequent days to entitle him to receive fifty dollars, ($50,) allowed by the schedule. In order to prevent this abuse

of the regulation, I have prescribed a scale of fees which applies to each day's work, so that this is prevented, and a gauger can only receive pay not to exceed six dollars for work performed in any one day. In a number of cases this rule works harshly, but being forced to choose between two evils, I have selected the lesser.

I am of opinion that many gaugers who at the present receive only six dollars per day justly earn a larger sum, and I should be glad to see such receive at least seven per day. The aggregate amount, however, paid for gauging is, in round numbers, one million of dollars, and this, in my judgment, is excessive. I believe this expense may be reduced one-fourth or more, after paying the deserving gaugers seven dollars per day. If Congress see fit to confer power upon the Commissioner to consolidate the offices of gauger and store-keeper, whenever, in his judgment, it can be done without detriment to the service, this power, in my opinion, could be profitably and wisely exercised at every distillery whose producing capacity does not exceed forty gallons per day. In this way I estimate that at least one hundred thousand dollars would be saved in expenses. If gauging at wholesale liquor-dealers is abolished, as I shall hereinafter suggest, an additional sum of two hundred thousand dollars may be saved. Let the limit of salary be then fixed at seven dollars per day, and I feel satisfied that a scale of fees could be established that would pay the deserving ones this limit without increasing the expenses beyond three-quarters of a million per annum.

TOBACCO.

The total receipts from tobacco for the fiscal year ended June 30, 1875, were thirty-seven million three hundred and three thousand four hundred and sixty-one dollars and eighty-eight cents, ($37,303,461.88.)

Comparing the receipts from the several sources of manufactured tobacco, snuff, and cigars, special taxes upon the manufacture and sale of the same, special taxes upon the sale of raw or leaf tobacco, and from the sale of export-stamps, with the receipts from corresponding sources for the fiscal year ended June 30, 1874, the following results are shown:

Manufactured tobacco taxed at 20 cents per pound	$18,653,043 29
Manufactured tobacco taxed at 24 cents per pound	5,480,683 19
Snuff, taxed at 32 cents per pound	1,067,033 03
Total for the year ended June 30, 1875	25,200,759 51
Year ended June 30, 1874	21,938,955 59
Increase of collections on tobacco and snuff	3,261,803 92
Cigars, cigarettes, &c., taxed at $5 per thousand	7,097,932 84
Cigars, cigarettes, &c., taxed at $6 per thousand	3,042,451 27
Cigarettes taxed at $1.50 per thousand	40,967 25
Cigarettes taxed at $1.75 per thousand	24,476 17
Total on cigars, &c., for the year ended June 30, 1875	10,205,827 53
Year ended June 30, 1874	9,333,592 24
Increase on cigars, cigarettes, &c	872,235 29

Per cent. of increase on tobacco and snuff for the last fiscal year over the preceding year, $14\frac{4}{5}$; and on cigars, cheroots, and cigarettes, $9\frac{2}{5}$ per cent.

Year ended June 30, 1875, received from sale of export-stamps	$6,981 20
Year ended June 30, 1874, received from sale of export-stamps	6,735 40
Increase from sale of export-stamps	245 80
Year ended June 30, 1875, collected from dealers in leaf-tobacco	92,228 33
Year ended June 30, 1874, collected from dealers in leaf-tobacco	115,991 88
Decreased collections from dealers in leaf-tobacco	23,763 55
Year ended June 30, 1875, collected from dealers in manufactured tobacco, &c	1,596,460 95
Year ended June 30, 1874, collected from dealers in manufactured tobacco, &c	1,641,937 79
Decreased collections from dealers in manufactured tobacco, &c	45,476 84
Year ended June 30, 1875, collected from special taxes of tobacco and cigar manufacturers	160,554 45
Year ended June 30, 1874, collected from special taxes of tobacco and cigar manufacturers	160,615 34
Decreased collections from tobacco and cigar manufacturers	60 89
Year ended June 30, 1875, collected from special taxes of peddlers of tobacco	40,627 91
Year ended June 30, 1874, collected from special taxes of peddlers of tobacco	44,671 30
Decreased collections from peddlers of tobacco	4,043 39
Year ended June 30, 1875, collected from sources under tobacco formerly taxed but now exempt	22 00
Year ended June 30, 1874, collected from sources under tobacco formerly taxed but now exempt	376 08
Decreased collections from these sources	354 08

The total amount of collections from the foregoing sources aggregates the sum of thirty-seven million three hundred and three thousand four hundred and sixty-one dollars and eighty-eight cents, ($37,303,461.88,) and shows an increase as compared with the previous fiscal year of four million sixty thousand five hundred and eighty-six dollars and twenty-six cents, ($4,060,586.26,) and an increase over any previous fiscal year of two million nine hundred and seventeen thousand one hundred and fifty-eight dollars and seventy-nine cents, ($2,917,158.79.)

Under the present internal-revenue law, all taxes imposed upon tobacco, snuff, and cigars, and upon the business of manufacturing and selling the same, are collected by special and denominational stamps. Hence, from the amount of receipts from any given source, it is easy to deduce the quantity and number of tobacco and cigars, respectively, manufactured and sold, and also the number of persons engaged in the business of manufacturing and selling the same.

From the foregoing figures it will be seen that while the amount of business done for the last fiscal year, as indicated by the increased collections on the goods made and sold, was largely in excess of any previous year, the number of persons and firms engaged in the business, par-

ticularly in the selling of the goods, was diminished by several thousand.

Number of tobacco and snuff manufacturers	983
Number of cigar manufacturers	15,073
Number of dealers in leaf-tobacco	3,438
Number of dealers in manufactured tobacco	319,293
Number of peddlers of tobacco	2,210

Allowing that there are four cigar-makers employed on an average for each cigar-factory, a number closely approximating to the actual number reported in the manufacturer's bonds, and it gives a total of cigar-makers employed during the last fiscal year of 60,292 persons.

There are no data given in the reports rendered to this Office from which it is possible to ascertain, even approximately, the number of employés engaged in the manufacture of tobacco; but allowing an average of fifty persons to each factory, which will probably be found not to vary materially from the actual number, and we have a total of 49,150 persons thus employed. Thus it will be seen that there were engaged in the manufacture of tobacco, snuff, and cigars during the last fiscal year 125,498 persons, and in the sale and distribution of the same 324,941 persons or firms, making an aggregate of 450,439 persons or firms directly engaged in this branch of national industry.

Production of manufactured tobacco and cigars.

Computing the number of pounds of tobacco and snuff and the number of cigars, cigarettes, &c., produced from the amounts of taxes collected on the same, and we have the following exhibit as the result:

	Pounds.
Tobacco taxed at 20 cents per pound	93,265,216.45
Tobacco taxed at 24 cents per pound	22,836,179.95
Snuff, taxed at 32 cents per pound	3,334,478.22
Total quantity on which tax was paid	119,435,874.62
Adding tobacco, &c., shipped in bond for export	9,179,315.88
Gives a total production of	128,615,190.50
This shows an increase over the production of the preceding fiscal year of	10,066,572.50

The number of cigars, cigarettes, &c., on which taxes were collected during the fiscal year ended June 30, 1875, including the imported cigars, which paid an internal-revenue tax in addition to the import-duty, was as follows:

Cigars, cheroots, &c., taxed at $5 per thousand	1,419,586,568
Cigars, cheroots, &c., taxed at $6 per thousand	507,075,211
Cigarettes taxed at $1.50 per thousand	27,311,500
Cigarettes taxed at $1.75 per thousand	13,986,383
Total production	1,967,959,662
Year ended June 30, 1874	1,886,697,498
Increase over preceding year	81,262,164

REVIEW.

Prior to the act of July 20, 1868, the legislation of Congress with regard to the mode of collecting taxes on manufactured tobacco, snuff, and

cigars seems to have been, and necessarily so, experimental in its character. In a country producing the raw material, and where no such taxes had ever before been levied, and therefore without any practical experience to serve as a guide, it was no easy matter to determine in advance what rates of tax, or what modes of collecting the same, or what restrictions it might be necessary to impose upon the producer, the manufacturer, or the dealer in tobacco, in order to yield to the Government the greatest amount of revenue, with a just and equitable distribution of the burdens of such taxation, and at the same time preserve as much as possible the interest of each of the different classes of persons before mentioned.

Different rates and different modes of assessing and collecting.

The rates of taxation have varied under different enactments, on different grades of manufactured tobacco, from two cents per pound to forty cents per pound; on snuff, from twenty cents to forty cents per pound; and on cigars, from one dollar and fifty cents per thousand to forty dollars per thousand.

Under some of the earlier laws, the tax was made partly specific and partly *ad valorem*, with a view of bringing the quality and price of the goods in as elements in determining the amount of tax which should be paid on a given quantity. But, however just and equitable such a mode of levying a tax on these articles might have appeared in theory, in practice it was found to be impracticable, and failed to produce satisfactory results.

STAMP-SYSTEM OF COLLECTING.

By the act of July 20, 1868, the present system of collecting all taxes on manufactured tobacco, snuff, and cigars by means of suitable stamps was adopted. This system necessarily involved prescribed modes of packing, with certain restrictions and limitations. It involved also certain modes of marking, branding, stamping, and canceling stamps, which were either specifically prescribed in the statute or authorized to be so prescribed by regulations. It made the tax specific in all cases, and uniform upon all cigars, of five dollars ($5) per thousand; on cigarettes weighing not exceeding three pounds per thousand, one dollar and fifty cents, ($1.50;) on snuff, thirty-two cents per pound; and on all smoking and chewing tobacco two rates, one of sixteen cents, the other of thirty-two cents per pound, respectively.

The more important provisions of the act of July 20, 1868, were thoroughly discussed during a long session of Congress, running far into the summer of that year. The committees in charge of the bill, in addition to such information as the Revenue Department could furnish them, availed themselves of the knowledge and experience of manufacturers themselves. In fact, many of the most important provisions of the law and most stringent restrictions of the same were adopted, if not upon the suggestion and recommendation of men representing the trade in its various branches, at least with their approval.

CHANGES MADE BY THE ACT OF JUNE 6, 1872.

The bonded-warehouse system authorized by the act of July 20, 1868, for the storage of tobacco intended for export, was repealed by the act of June 6, 1872. By the same act the tax on all manufactured tobacco,

excepting snuff, was made uniform at 20 cents per pound; and by the same law more stringent provisions were enacted to enable the Government to control the movement of raw or leaf tobacco, and to prevent its sale for direct consumption, either by dealers or the growers or producers thereof. These amendments, opposed at the time by a portion of the trade, have, since their enactment into law and since time has been given to test their practical operations, received the general approval of the trade, and are now regarded, especially the two last named, as of paramount importance to manufacturers of and dealers in manufactured tobacco.

INCREASED RATE OF TAX UNDER THE ACT OF MARCH 3, 1875.

By the act of March 3, 1875, the rate of tax on all grades of manufactured tobacco was increased twenty per cent., and a corresponding increase made upon cigars, the tax now being twenty-four cents per pound on tobacco, and six dollars ($6) per thousand on cigars; cigarettes weighing not exceeding three pounds per thousand, being taxed at one dollar and seventy-five cents ($1.75) per thousand, instead of one dollar and fifty cents, ($1.50) as under previous law.

THE TAX ULTIMATELY PAID BY CONSUMERS.

The tax on tobacco, snuff, and cigars, being levied upon the manufactured goods, and made payable by means of stamps attached to the same when sold, or removed from the place of manufacture for sale or consumption, is an indirect tax upon the purchaser or consumer. Primarily, indeed, the manufacturer pays the tax, but charges the same over to, and collects it from, the purchaser, so that, ultimately, the tax is paid by the consumer, each consumer paying now in exact proportion to the quantity consumed. The burden of this tax being thus distributed among the millions of voluntary consumers, its weight can never be seriously felt so long as it is not excessive in amount and is uniformly and thoroughly collected.

Estimated number of consumers of manufactured tobacco and cigars in the country, and the average consumption of each.

Supposing the population of the entire country at the present time to be forty-four million, and that two-thirds of the adult male population are in the daily habit of using tobacco in one or more of the forms in which tobacco is used, we have eight million eight hundred thousand consumers.

Of this number probably eight hundred thousand, consisting of the growers or producers of tobacco and the laborers employed in raising the same, the manufacturers of tobacco and their employés, consume tobacco, raw or manufactured, from which the Government receives no revenue.

Dividing the 119,435,874 pounds of manufactured tobacco and the 1,967,959,662 cigars, &c., on which taxes were collected during the last fiscal year, equally among eight million consumers, and they will receive a small fraction (about an ounce) less than fifteen pounds of tobacco per capita, and with it two hundred and forty-six cigars or cigarettes.

The following schedule shows the aggregate amount of taxes collected on manufactured tobacco and snuff, with the different rates of tax and

the average rate per pound for each fiscal year, for the period beginning September 1, 1862, and ending June 30, 1875:

Fiscal years ended June 30—	Aggregate collections.	Different rates at which taxes were collected.	Average rate of tax per pound.
1863	$2, 613, 438 61	2, 5, 10, 15, 20 cents	10. 96 cents.
1864	7, 327, 618 98	5, 15, 20 cents	11. 35 cents.
1865	8, 300, 372 55	15, 25, 30, 35, 40, 40 cents	22. 08 cents.
1866	13, 038, 095 73	15, 30, 35, 40, 40 cents	34. 77 cents.
1867	16, 043, 842 50	15, 30, 40, 40 cents	33. 08 cents.
1868	15, 692, 415 77	15, 30, 40, 40 cents	33. 55 cents.
1869	17, 371, 063 64	15, 16, 30, 32, 40, 32, 40 cents	27. 01 cents.
1870	24, 300, 483 42	16, 32, 32 cents	26. 91 cents.
1871	25, 560, 539 67	16, 32, 32 cents	26. 87 cents.
1872	24, 570, 775 59	16, 32, 32 cents	25. 81 cents.
1873	23, 397, 858 22	20, 32 cents	20. 38 cents.
1874	21, 938, 955 59	20, 32 cents	20. 36 cents.
1875	25, 200, 759 51	20, 24, 32 cents	21. 10 cents.

Schedule showing the aggregate amount of taxes collected on cigars, cheroots, and cigarettes, with the different rates of tax for each fiscal year, for the period beginning September 1, 1862, and ending June 30, 1875.

Fiscal years ended June 30—	Aggregate collections.	Different rates at which taxes were collected on cigars, cigarettes, &c.
1863	$476, 589 29	$1.50, $2, $2.50, $3.50, as per valuation.
1864	1, 255, 424 79	$1.50, $2, $2. 50, $3.50, as per valuation.
1865	3, 087, 421 51	$3, $8, $10, $15, $25, $40, as per valuation.
1866	3, 476, 236 86	$10, cigarettes 5 per cent. ad valorem.
1867	3, 661, 984 39	$2, $4, $5, $4 + 20 per cent. ad valorem; $10, cigarettes 5 per cent. ad valorem.
1868	2, 951, 675 26	$5.
1869	4, 960, 952 67	$5, cigarettes, $1.50.
1870	5, 718, 780 04	Do.
1871	6, 598, 173 24	Do.
1872	7, 566, 156 86	Do.
1873	8, 940, 791 48	Do.
1874	9, 333, 502 24	Do.
1875	10, 205, 827 53	$5, $6, cigarettes, $1.50, $1, 75.

Schedule showing the aggregate taxes collected on tobacco, snuff, and cigars, collected from special taxes on the manufacture and sale of the same, and the aggregate amount of collections from all of these sources, for each fiscal year, since the adoption of the present mode of collecting by stamps.

Fiscal years ended June 30	Collected on tobacco, snuff, and cigars.	Collected on special taxes.	Aggregate collections from all these sources.
1869	$22, 332, 016 31	$1, 098, 691 26	$23, 430, 707 57
1870	30, 019, 263 46	1, 331, 444 42	31, 350, 707 88
1871	32, 158, 712 91	1, 420, 194 27	33, 578, 907 18
1872	32, 136, 932 45	1, 599, 238 07	33, 736, 170 52
1873	32, 338, 249 70	2, 048, 053 39	34, 386, 303 09
1874	31, 272, 547 83	1, 970, 327 79	33, 242, 875 62
1875	35, 406, 587 04	1, 896, 874 84	37, 303, 461 88

The total amount of taxes collected on tobacco and snuff from September 1, 1862, to June 30, 1875, is two hundred and twenty-five million three hundred and fifty-six thousand two hundred and nineteen dollars and seventy-eight cents, ($225,356,219.78.) These collections were made

on 944,827,866 pounds, being at an average rate of $23\frac{85}{100}$ cents per pound.

The total collections on cigars, cheroots, and cigarettes for the same period were $68,233,206.16. Of this sum there was collected during the first five years, under the graded and partly *ad valorem* rates, $11,957,656.84, while during the remaining eight years, when the rate of tax was specific and uniform on all cigars and cigarettes of five dollars ($5) and one dollar and fifty cents ($1.50) per thousand, respectively, the collections were $56,275,549.32.

The foregoing tables and figures seem to establish fully the following propositions: First, that the true mode of levying taxes upon manufactured tobacco, snuff, and cigars is by means of specific and uniform rates; secondly, that the collections are the most easily and thoroughly made by means of suitable revenue-stamps attached to each package after the goods are properly packed; thirdly, that the rate of tax which will produce the greatest amount of revenue lies between the extreme rates which have been successively tried under different revenue-laws; and, fourthly, that the best results thus far, other things being equal, have been obtained during those years when the rates have been most nearly uniform and constant.

While it is doubtful whether the removal of the tax altogether on tobacco, snuff, and cigars would have the effect of greatly increasing the consumption of the same, it is certain that any material reduction of the present rates, save, perhaps, the reduction of the rate of tax on snuff, from thirty-two to twenty-four cents per pound, would cause a corresponding reduction in the aggregate collections.

It is to be observed that the present rate of twenty-four cents per poupd on all descriptions of manufactured tobacco, save snuff, is within a very small fraction the same as the average rate ($23\frac{85}{100}$ cents) for the thirteen years during which such taxes have been collected, and it is fair to presume that this rate of twenty-four cents per pound is the true revenue-rate, or the rate which, under the present system, will produce the greatest amount of revenue to the Government. While a lower rate, as the foregoing figures show, would give diminished collections on the quantity actually reported for taxation, a higher rate would not only tend to incite to fraudulent productions and sales, but would encourage the growth of the plant, and its use by consumers in its raw or unmanufactured state.

Twenty-five pounds of leaf-tobacco is about the average quantity used in making one thousand cigars. This quantity of leaf-tobacco, if cut or granulated and put up as smoking-tobacco, would be liable, when sold, to a tax in the aggregate of six dollars, ($6.) When, therefore, the rate of tax on tobacco is twenty-four cents per pound, the rate of tax on cigars should be, as it is, six dollars ($6) per thousand, in order that the burden of taxation may be equally distributed between the two classes of manufacturers and consumers.

ASSESSMENTS.

The ascertainment of liability to taxes on the part of persons, firms, associations, and corporations, and the assessment of those taxes, formerly belonged to assessors. The office of assessor was abolished by act of 24th December, 1872, and now the Commissioner of Internal Revenue is required to make the inquiries, determinations, and assessments of all taxes and penalties imposed by the internal-revenue law, where such taxes have not been duly paid by stamps at the time and in the manner provided by law. He is required to certify a list of such

assessments, when made, to the proper collectors, respectively, who proceed to collect and account for the taxes and penalties so certified.

The power thus conferred has been exerted, within the past fiscal year, in making assessments exceeding eight million dollars. No power more arbitrary in respect to rights of property can be conceived, since it is expressly provided that no suit for the purpose of restraining the assessment or collection of any tax shall be maintained in any court. Is it asked, How, then, are the rights of the citizen protected against injustice? I answer, First, in the justice of the Commissioner in making the original assessment; next, in the opportunity given him to review his action, when an appeal is made for the abatement of the tax; and, finally, when the illegal tax has been paid or collected, in the remedy which the citizen has against the United States, in suing the collector and recovering back money and interest. Though this process seem circuitous, and the redress tardy, yet no efficient tax-law could afford to relax these seeming rigors, and allow the Commissioner and collectors to be thwarted at every step by injunctions and restraining orders.

This power of assessment extends to all distilled spirits removed from the place where they were distilled, and not deposited in a bonded warehouse; to deficiencies in the distiller's monthly returns, where he does not report all the spirits that should have been produced by him, having reference to the quantity of material that has gone into his distillery and its spirit-producing capacity; to manufacturers of tobacco, snuff, and cigars, where these products have been sold, or removed for sale or consumption, without the use of the proper stamps, the power of assessment within the period of two years being given in such cases; to fermented liquors removed from breweries unstamped; to proprietary articles removed unstamped from the factories; to legacies and successions; to special taxes on trades and occupations; to incomes and dividends; and to the deposits, capital, and circulation of banks and bankers.

The present system of assessment, under the act of December 24, 1872, having gone into force in May, 1873, the first assessment-year ended April 30, 1874, and the second April 30, 1875. Accordingly, the following table shows the assessments made by the Commissioner and receipted for by collectors during these two assessment-years, with the increase or decrease on each article assessed.

Article or occupation.	1874.	1875.	Increase.	Decrease.
Tax on deficiency and tax on excess of material used in the production of distilled spirits	$163,065 30	$93,124 15	.....	$69,941 15
Tax on deposits, capital, and circulation of banks and bankers	3,427,011 78	3,983,951 00	$556,939 22	.....
Distilled spirits seized or fraudulently removed	168,978 53	2,385,520 41	2,216,541 88	.....
Fermented liquors removed from brewery unstamped	16,768 38	24,345 85	7,577 47	.....
Tobacco, snuff, and cigars removed from factory unstamped	14,968 48	120,766 20	105,797 72	.....
Proprietary articles removed from manufactory unstamped	7,534 53	5,228 92	.....	2,305 61
Assessed penalties	168,290 09	331,993 02	163,702 93	.....
Legacies and successions	103,025 55	161,145 38	58,119 83	.....
Other taxes omitted to be assessed by assessors	38,304 38	.....	.....	38,304 38
Unassessed and unassessable penalties, interest-taxes previously abated, conscience-money and deficiencies in bonded accounts which have been collected; also fines, penalties, and forfeitures paid to collectors by order of court or by order of Secretary, and amount of penalties and interest received for validating unstamped instruments, (Form 58)	352,963 84	320,408 71	.....	32,555 13
Special taxes, (licenses)	324,756 59	214,711 48	.....	110,045 11
Tax on income and dividends	.....	588,808 10	588,808 10	.....
Total	4,785,667 45	8,230,003 22	3,444,335 77	.....

The increase of $556,939.22 in the tax assessed this year on deposits, capital, and circulation of banks, &c., over the amount assessed last year, includes assessments amounting to $227,715.80, made in December last against certain manufacturing and other corporations on notes paid out and used for circulation. These assessments, which had heretofore escaped the vigilance of the local officers, were made by this Office in strict accordance with existing laws, but they were not collected, as Congress, by act approved March 3, 1875, relieved those companies against whom assessments had been made, together with all other parties against whom similar large assessments were contemplated, from the payment of the tax and penalty. But, even after deducting this item of $227,715.80 from the total increase of $556,939.22, there remains a clear gain of $329,223.42 over the assessments made during the year ended April 30, 1874, and an increase over the collections from these sources during the fiscal year ended June 30, 1873, of $1,158,514.24.

The large amount of $2,385,520.41 assessed on distilled spirits is mostly owing to the recent discovery of stupendous frauds committed by distillers in various parts of the country. This amount will be largely increased during the current assessment-year, additional assessments having already been made as follows: $142,137.22 in May, $24,153.71 in June, $68,958.34 in July, $413,874.18 in August, and $136,468.45 in September; amounting in all to $785,591.90. The advantage which the present mode of assessment affords, of creating a lien on the property of the distiller as soon as the fraudulent removal of spirits is discovered, has proved of great benefit to the Office, and, taken in connection with the measures recently adopted through the newly-created Division of Revenue Agents, will, it is confidently expected, result in securing a much more thorough collection of the tax on distilled spirits.

Observation and experience having demonstrated that, as a general rule, brewers produce one barrel of beer from every 2½ bushels of malt, or its equivalent, this Office announced its adoption of that quantity as a basis for estimating the quantity of fermented liquors produced by the brewer, in a letter dated July 15, 1874, and published in the Internal Revenue Record. Assessments have been made from that time on the reported deficiency of such production, except when satisfactorily explained. This action secured an increase of $7,577.47 in the tax assessed on fermented liquors.

A standard of production in the case of cigars having been determined in a similar manner, and reports required of collectors showing the quantity of materials used and number of cigars made by manufacturers in their respective districts, a very large increase of assessments of tax on cigars removed from the factory unstamped resulted. The increase, $105,797.72, is, in fact, about seven times the amount assessed during the previous year on tobacco, snuff, and cigars. It is expected that during the current year the assessments of tax on tobacco will also largely increase, as steps have been taken, by prescribing a form of report to be made by collectors to this Office, to secure a more efficient collection of the tax on this article.

The amount of penalties assessed this year is $331,993.02, an increase of $163,702.93 over last year. This amount, however, includes assessments, amounting to $113,914.56, against certain manufacturing and other corporations, which, as in the case of the tax on deposits, capital, and circulation of banks, &c., were not collected by reason of the act of Congress above referred to. Deducting this amount, we have still an increase of $49,788.37, which will appear quite large when it is considered that the most of these assessments are penalties against delinquent spe-

cial tax-payers, and that, therefore, each single assessment must of necessity be very small, ranging from $2.50 to $15. By the revised form of assessment-lists, collectors are required to state the date on which the tax-payer made the prescribed return, and, as by this date his liability to a penalty is determined, it is believed that by this precaution few, if any, escape the penalty justly due.

Particular attention has been paid to the assessment and collection of the tax on legacies and successions, and on incomes and dividends. The increase of $58,119.83 in the tax on legacies and successions, and of $588,808.10, the whole amount assessed on incomes and dividends, is attributable to special investigations made by internal-revenue officers and to favorable judicial action.

The decrease of the assessments for deficiencies and excess of material used in the production of distilled spirits, amounting to $69,941.15, indicates that the majority of distillers have learned to adapt the management of their business to the surveyed capacity of their distilleries.

The amount assessed as "other taxes" last year was for taxes omitted to be assessed by the former assessors while they were still in office. These assessments having all been completed before the expiration of the first assessment-year, no assessments under this head could be made in the second year.

The bulk of taxes reported on Form 58 is composed of amounts paid to collectors by order of court in suits which have been finally decided. The decrease of $32,555.13 in the assessments under this head may therefore be taken as evidence that suits involving a less amount of tax were decided in the last year than in the previous one. It is observed that when revenue-officers have discovered taxes to be due and not assessable under the statute of limitation relative to assessments, the parties liable have preferred to waive the benefit of the statute and make returns as the basis for assessments rather than be sued for the taxes and penalties.

For the purpose of relieving the accounts of collectors from duplicate charges, it was determined, in the beginning of the past assessment-year, to exclude special taxes which had been paid by stamps, from the receipt which is given by the collector for the amount of the assessment-list. Taking this into consideration, the apparent decrease in the amount assessed last year for special taxes, from the assessments of the previous year, amounting to $110,045.11, is easily explained. If such special taxes had been included during the year ended April 30, 1875, the amount assessed would have been largely in excess of that assessed during the previous year.

The whole amount of taxes assessed during the year ended April 30, 1875, was $8,230,003.22, an increase over the amount assessed during the previous year of $3,444,335.77.

OPERATIONS AT DISTILLERY-WAREHOUSES.

The following table shows the quantity of distilled spirits in taxable gallons, at 70 cents and at 90 cents tax, placed in distillery-warehouses, withdrawn therefrom, and remaining therein at the beginning and close of the fiscal year ended June 30, 1875:

	Gallons.	Gallons.
Quantity of distilled spirits remaining in bond July 1, 1874		17, 755, 069*
Distilled spirits produced from July 1, 1874, to March 3, 1875	42, 606, 320	
produced from March 3, 1875, to June 30, 1875	18, 324, 105	
Total produced to June 30, 1875		60, 930, 425
		78, 686, 394
Distilled spirits withdrawn tax-paid under act of June 6, 1872, at 70 cents	53, 751, 351	
exported under act of June 6, 1872, at 70 cents	1, 990, 510	
exported and unaccounted for	473, 035	
allowed for loss by casualty	15, 352	
withdrawn for scientific purposes	158	
Total withdrawn under act of June 6, 1872	56, 220, 406	
Distilled spirits withdrawn as tax-paid under act of March 3, 1875, at 90 cents	8, 829, 647	
exported under act of March 3, 1875, at 90 cents	24, 448	
exported and unaccounted for, at 90 cents	244, 482	
withdrawn for scientific purposes, at 90 cents	158	
Total withdrawn under act of March 3, 1875	9, 098, 735	
Total withdrawn under both acts		65, 319, 141
Distilled spirits remaining in bond, at 70 cents	4, 141, 883	
remaining in bond, at 90 cents	9, 225, 370	
Total remaining in bond June 30, 1875		13, 367, 253
		78, 686, 394

* Including 2,145,010 gallons out on export-bonds, and excluding 204,716 gallons, at 50 cents, destroyed by fire, and 2,034 gallons assessed as not actually in warehouse.

EXPORTATION OF DISTILLED SPIRITS.

The quantity of distilled spirits removed from distillery-warehouses for export during the year ended June 30, 1874, was 4,060,106 gallons; the quantity so removed during the year ended June 30, 1875, was only 587,413 gallons; a decrease of 3,472,693 gallons.

No change has been made in the laws or regulations governing such exportations, except that the regulation requiring sureties on bonds filed with collectors of customs to justify on the basis of their real estate was revoked by you in an order dated February 28, 1875.

There has been no increase in the rate of exportation of alcohol during the first quarter of the present fiscal year, but the quantity of rum removed for exportation has largely increased; the quantity reported removed up to the time this report is made (November 5, 1875) being 404,503 taxable gallons.

EXPORTATION OF MANUFACTURED TOBACCO AND SNUFF IN BOND.

The records of the Office show that tobacco and snuff which had been removed in bond for exportation prior to July 1, 1874, remained unaccounted for by landing-certificates on that day, as follows:

Tobacco at 20 cents tax	5, 476, 115. 50 pounds.
Snuff at 32 cents tax	5, 033. 63 pounds.
Total	5, 481, 149. 13 pounds.

During the fiscal year ended June 30, 1875, the quantities of tobacco removed for exportation in bond without payment of tax were as follows:

Tobacco under exportation-bonds, at 20 cents	6, 691, 190. 63 pounds.
Tobacco under exportation-bonds, at 24 cents	2, 204, 695. 00 pounds.
Tobacco under transportation-bonds, at 24 cents	244, 674. 00 pounds.
Snuff, at 32 cents per pound tax	38, 756. 25 pounds.
Total removed from manufactories for exportation	9, 179, 315. 88 pounds.

A decrease of 1,621,611.12 pounds from the amount so removed during the fiscal year ended June 30, 1874.

This decrease may be partly explained by the fact that under the act of June 6, 1872, the manufacturer alone could execute the export-bond as principal, and thereby was held responsible for the acts of his customers to whom he sold the tobacco and who were the real exporters. If it should prove true that this fact has tended to discourage to some extent the exportation of tobacco, it is hoped and believed that the evil will be remedied by the act of February 8, 1875, by which the manufacturer is allowed to remove tobacco under a transportation-bond, which is canceled upon the production of a clearance-certificate by the collector of customs at the port of export, showing that the goods have been laden on board the outward-bound vessel, and upon the execution of an export-bond by the owner or shipper of the tobacco to the collector of customs.

While the amount bonded for exportation has decreased, the amount actually accounted for as exported by landing-certificates has increased. The amount thus accounted for during the year is 10,994,808.13 pounds, 1,955,784.24 pounds more than during the previous year.

The amount of tobacco removed and remaining unaccounted for by landing-certificates at the end of the year is as follows:

	Pounds.
Amount removed from bonded warehouses, at 20 cents tax	77,830.50
Amount removed under export-bonds, at 20 cents tax	1,679,893.50
Amount removed under export-bonds, at 24 cents tax	1,604,852.50
Snuff removed under export-bonds, at 32 cents tax	7,284.00
Tobacco removed under transportation-bonds, of which 78,067 pounds have been accounted for by clearance-certificates	244,674.00
Total	3,614,534.50

Showing a reduction from the balance reported at the beginning of the year, of 1,866,614.63 pounds.

DRAWBACK.

The following table shows the amount of drawback of internal taxes allowed on different articles exported during the fiscal year ended June 30, 1875.

Port of export.	Number of claims.	Medicines and preparations.	Tax on tobacco.	Tax on snuff.	Tax on fermented liquors.	Total.
Baltimore	14	.....	$1,322 60	.....	.....	$1,322 60
Boston	56	$5,254 94	70 40	.....	.....	5,325 34
New Orleans	3	.....	.....	$353 28	.....	353 28
New York	311	16,078 63	3,535 20	.....	$161 87	19,775 70
Philadelphia	19	1,535 12	.....	.....	46 24	1,581 36
San Francisco	4	.....	503 20	.....	.....	503 20
Suspension Bridge	1	15 55	.....	.....	.....	15 55
Troy	2	64 80	.....	.....	.....	64 80
Total	410	22,949 04	5,431 40	353 28	208 11	28,941 83

Total amount of drawback allowed during the fiscal year ended June 30, 1874, was $35,495.31, showing a decrease of $6,553.48, in the claims allowed during the past year.

TAXATION UPON THE CAPITAL, DEPOSITS, AND CIRCULATION OF BANKS AND BANKERS.

National banks pay taxes to the Treasurer of the United States in the months of January and July, of one-half of one per cent. each half-year, upon the average amount of their notes in circulation; of one-quarter of one per cent. each half-year, upon the average amount of their deposits, and the same rate each half-year on the average amount of their capital stock beyond the amount invested in United States bonds. These taxes are collected by the Treasurer, and constitute no part of the internal revenue. Since the organization of national banks, the amount realized from these sources up to the close of the last fiscal year has been sixty-four million nine hundred and eighty-nine thousand three hundred and seventy-four dollars and forty-six cents, ($64,989,374.46;) the amount realized during the last fiscal year having been seven million two hundred and seventy thousand seven hundred and fifty-eight dollars and forty cents, ($7,270,758.40.) The amount paid by the national banks on deposits alone, during the period of their existence up to June 30, 1875, is thirty million eighteen thousand and twenty-eight dollars and twelve cents, ($30,018,028,12,) while the amount paid during the last fiscal year is three million four hundred and twenty-seven thousand five hundred and seventy-six dollars and thirty-one cents, ($3,427,576.31.)

Other taxes on banks and bankers, not national, are collected under the internal-revenue laws. The persons, firms, and institutions thus taxed embrace every incorporated or other bank, and every person, firm, or company having a place of business where credits are opened by the deposit or collection of money or currency, subject to be paid or remitted upon draft, check, or order, or where money is advanced or loaned on stocks, bonds, bullion, bills of exchange, or promissory notes, or promissory notes are received for discount or for sale. These taxes consist, *first*, of a tax of one-twenty-fourth of one per cent. each month upon the average amount of the deposits of money subject to payment by check or draft or represented by certificates of deposit; *second*, of a tax of one-twenty-fourth of one per cent. each month on the capital employed by these banks and bankers beyond the average amount invested in United States bonds; *third*, of a tax of one-twelfth of one per cent. each month upon the average amount of circulation issued by them, and an additional tax of one-sixth of one per cent. each month upon the average amount of such circulation issued beyond the amount of 90 per cent. of the capital of the bank, association, corporation, company, or person.

I have been thus particular in calling your attention to the laws regulating taxes upon national banks, and upon banks not national, and bankers, for the purpose of presenting forcibly the exemptions on deposits in savings-banks. It is provided that the deposits in associations or companies known as provident institutions, savings-banks, savings-funds, or savings-institutions, having no capital stock and doing no other business than receiving deposits to be loaned or invested for the sole benefit of the parties depositing, without profit or compensation to the association or company, shall be exempt from tax on so much of their deposits as they have invested in securities of the United States, and on all deposits not exceeding two thousand dollars, ($2,000,) made in the name of any one person.

Congress, by act of 18th of June, 1874, extended this exemption from taxation to deposits in such institutions as were then existing, doing business only as savings-banks, and recognized as such by the laws of

their respective States or by Congress. The exemption from taxation was to be the same as with deposits in savings-institutions having no capital, although, in fact, they had a capital stock or bond for the additional security of their depositors. In fact, the law authorized a dividend of 8 per cent. on the stock in providing that the excess of profits above this dividend should be divided among the depositors, and besides provided that interest at the rate of not less than 4½ per cent. be paid in all cases to the depositors, to be made good, if necessary, from the capital stock. This is the present condition of the law.

The internal-revenue act of June 30, 1864, exempted savings-banks from all taxation where they had no capital stock and confined their business to receiving and loaning deposits for the benefit of depositors only, doing no other business of banking.

The act of March 3, 1865, struck out this exemption, and, of course, left savings-banks liable to taxation upon their deposits. But Congress, on the 13th of July, 1866, again having the subject under consideration, subjected to taxation all deposits in provident institutions, savings-banks, and savings-institutions where the deposits made by any one person amounted to five hundred dollars, ($500,) or upward.

By the existing law, as seen, the deposits made by any one person are not liable to tax unless they exceed two thousand dollars, ($2,000,) and this exemption instead of being confined to savings-banks having no capital stock and doing no banking business is now, by recent legislation, extended to classes of institutions bearing kindred names having a capital stock and making dividends.

The fruits of this legislation are seen in the appended table, which exhibits the capital and deposits held by banks and bankers, other than national, in May, 1875, and the aggregate average amount of the same during the six months previous, in the several States and Territories, taxable under the internal-revenue laws, and the percentage of the taxable amounts reported for said six months as compared with the total amounts held during May last.

It will be observed from the footings of this table—

That the average amount of capital held by these banks and bankers (not national) in May, 1875, was.....	$200,316,098
That the average amount of their deposits in the same month was.....	1,346,014,813
That the total of capital and deposits in the same month was.....	1,546,330,911
While the amount of the *taxable* capital and deposits of these banks and bankers during said six months was only.....	780,494,076

or a little more than three-fourths of a million of dollars, while the amount of the actual capital and deposits of these same institutions was, in round numbers, $1,546,000,000.

It will also be apparent from the table how unequally this taxation is distributed among the States. Thus, upon a given amount of capital and deposits, the tax on California, as compared with Massachusetts, is as ten to one; on Michigan, as compared with the same State, as sixteen to one; on Virginia, as compared with Vermont, as five to one. The city of New York, possessing taxable capital and deposits $50,000,000 less than Maine, New Hampshire, Vermont, Massachusetts, and Connecticut combined, pays a tax three times as great as these States, while these same States, having capital and deposits three times

as great as California, pay about one-half the tax thereon that is paid by California.

I present these figures for your consideration, and for such use as you deem proper to make in your report to Congress, and with this single remark, that if deposits in these so-called savings-institutions are thought a proper subject for exemption from taxation where they are employed with such profitable results, it were better to return to the rule adopted by Congress in 1866, when deposits made by any one person in excess of $500 were subjected to taxation.

The following is the table referred to:

State or Territory.	Average capital May, 1875.	Average deposits May, 1875.	Total capital and deposits May, 1875.	Taxable capital and deposits six months ended May 31, 1875.	Percentage.
Alabama	$955,000	$1,800,847	$2,755,847	$2,864,640	104
Arkansas	175,275	184,804	360,079	389,408	108
California	19,941,282	99,640,319	119,581,601	80,500,052	67
Colorado	165,145	914,054	1,079,199	1,210,092	112
Connecticut	2,309,010	77,467,290	79,866,300	22,321,012	28
Dakota	11,000	96,650	107,650	129,152	119
Delaware	470,562	1,385,129	1,855,691	1,274,000	69
District of Columbia	495,456	3,814,703	4,310,159	2,992,000	69
Florida	42,000	237,265	279,265	254,400	91
Georgia	4,104,257	3,965,978	8,070,235	9,170,928	113
Idaho	102,000	56,853	158,853	148,000	94
Illinois	10,163,398	35,629,942	45,793,340	36,125,944	79
Indiana	5,402,258	12,161,278	17,563,536	14,671,704	84
Iowa	3,330,976	11,957,458	15,288,434	11,501,548	75
Kansas	1,344,131	2,253,757	3,597,888	3,853,484	107
Kentucky	9,709,965	12,200,901	21,910,866	25,720,252	117
Louisiana	4,039,720	7,723,296	11,763,016	10,028,648	85
Maine	2,140,138	29,697,569	31,837,707	4,327,220	135
Maryland	4,447,838	24,260,491	28,708,329	12,155,636	42
Massachusetts	3,974,342	238,238,794	242,213,136	15,077,532	06
Michigan	3,150,048	10,547,674	13,706,722	13,874,364	101
Minnesota	1,091,111	1,872,648	2,963,759	2,819,160	95
Mississippi	808,919	1,261,665	2,070,584	2,285,364	110
Missouri	9,226,683	35,723,844	44,950,527	48,192,928	107
Montana	76,750	80,201	156,951	174,800	111
Nebraska	321,719	1,060,736	1,382,455	1,316,988	95
Nevada	195,980	2,086,974	2,282,954	2,587,480	113
New Hampshire	749,014	23,558,567	24,307,581	4,863,144	20
New Jersey	1,827,170	34,408,873	36,236,043	15,274,688	42
New Mexico		16,841	16,841	23,752	141
New York	12,750,006	158,063,996	170,814,002	60,907,208	35
New York City	52,073,353	282,711,406	334,784,759	158,556,988	47
North Carolina	621,408	1,552,466	2,173,874	2,246,020	103
Ohio	7,687,538	39,988,035	47,675,573	40,053,768	84
Oregon	490,455	1,236,848	1,727,303	1,874,000	108
Pennsylvania	21,537,699	96,717,293	118,254,992	105,322,116	89
Rhode Island	3,939,263	53,127,962	57,067,225	21,818,528	38
South Carolina	1,069,550	1,224,076	2,293,626	2,494,776	108
Tennessee	875,147	2,916,792	3,791,939	3,869,016	102
Texas	2,947,182	4,153,263	7,100,445	7,235,372	102
Utah	60,000	517,819	577,819	677,020	117
Vermont	90,000	10,007,254	10,097,254	2,197,792	21
Virginia	2,869,524	7,248,461	10,117,985	10,247,228	101
Washington	114,946	157,612	272,558	334,000	122
West Virginia	745,783	3,113,178	3,858,961	4,062,876	105
Wisconsin	1,563,597	8,929,797	10,493,394	12,259,940	116
Wyoming	10,500	43,154	53,654	98,408	183
Total	200,316,098	1,346,014,813	1,546,330,911	780,494,076	.....

MISCELLANEOUS.

On the 15th day of May last I assumed the duties of the office of Commissioner of Internal Revenue, made vacant by the resignation of Hon. John W. Douglass.

The office force consisted of—

One Commissioner, at a salary of	$6,000
One deputy commissioner	3,500
One deputy commissioner	3,000
Seven heads of division	2,500
One stenographer	2,000
Thirty clerks class four	1,800
Forty-five clerks class three	1,600
Fifty-two clerks class two	1,400
Eighteen clerks class one	1,200
Seventy-five clerks (ladies)	900
Five messengers	840
Three assistant messengers	720
Fourteen laborers	720

By act of Congress approved March 3, 1875, it became necessary, on the first of July, for me to recommend the dropping of three clerks of the third class, two clerks of the second class, five lady clerks, and two laborers. I accordingly called upon my several heads of division to inform me in writing relative to the efficiency of the individuals employed in their respective divisions, that I might be enabled with justice to dispense with the services of those who were least efficient. These reports, in my judgment, warranted a greater reduction than was contemplated by the act referred to; and consequently I recommended the dropping of the names of twenty persons from the rolls of the Office, and the appointment of eight persons *vice* those dropped in excess of the requirements of the law. The entire number of persons now employed in the Bureau is two hundred and forty-one, including officers. This force is divided under the law into seven divisions, as follows, to wit:

1. DIVISION OF LAW, in charge of Charles Chesley, esq., solicitor of internal revenue, assisted by William H. Armstrong. This division is subdivided into four sections, to wit:

Section 1.—O. F. Dana, chief; in charge of frauds, seizures, suits, &c.

Section 2.—E. H. Breckenridge, chief; in charge of abatement and refunding claims.

Section 3.—Henry A. Blood, chief; in charge (excepting as hereinafter stated) of questions relating to special taxes, documentary stamp-taxes, taxes on incomes, legacies, and successions, and on dividends, &c., lands purchased for the United States on distraint, and the extension of time on distraints.

Section 4.—Israel Kimball, chief; in charge of matters (including special taxes) relating to tobacco, snuff, and cigars, not in suit or in bond, and stamp-taxes on medicines and preparations under Schedule A of Revised Statutes.

2. DIVISION OF ACCOUNTS, in charge of H. C. Rogers, esq., first deputy commissioner, assisted by Edward Tompkins. This division is subdivided into the following sections:

Section 1.—Edward Tompkins, chief; in charge of the examination and reference of the revenue and disbursing accounts, and estimates of collectors, and of their applications for special allowances, and of all matters relative to advertising and the purchase of blank-books, newspapers, and stationery for supervisors, collectors, revenue-agents, &c.

Section 2.—Samuel H. Goodman, chief; in charge of the examination and reference of the monthly bills of supervisors, revenue-agents, gaugers, and distillery-surveyors, and of all miscellaneous claims presented to this Bureau arising under any appropriation made for carrying into effect the various internal-revenue laws, (excepting claims for abatement, refunding, and drawback,) and the preparation of estimates for appropriations by Congress.

3. DIVISION OF STATISTICS AND DIRECT TAXES, in charge of James M. Ray, esq., second deputy commissioner. This division is subdivided into the following sections, to wit:

Section 1.—J. B. Taylor, chief; in charge of statistics.

Section 2.—C. W. Eldridge, chief; in charge of direct taxes.

4. DIVISION OF DISTILLED SPIRITS, in charge of T. A. Cushing. This division is charged with the supervision of all matters pertaining to distilleries, distilled spirits, fermented liquors, wines, rectification, gaugers' fees and instruments, approval of bonded warehouses, and the assignment of store-keepers. This division is subdivided into two sections, as follows:

Section 1.—E. S. Holmes, chief; in charge of fermented liquors, rectifiers' returns, gaugers, gaugers' instruments, and locks and seals.

Section 2.—Samuel L. Stephenson, chief; in charge of registering of stills, notices and returns of distillers' reports of surveys, plans of distilleries, approvals of warehouses, assignments of store-keepers, store-keepers' monthly reports of materials used and spirits produced, and gaugers' reports of gauging done at fruit-distilleries.

5. STAMP DIVISION, in charge of E. R. Chapman. This division is charged with the supervision of the preparation, safe-keeping, issue, and redemption of stamps for distilled spirits, tobacco and cigars, fermented liquors, special taxes, documentary and proprietary stamps, and the keeping of all accounts pertaining thereto.

This division also has supervision of all business with Adams Express Company, the preparation, custody, and issue of steel dies for canceling stamps; also the custody of official postage-stamps, and the stamping and dispatch of the mails.

6. DIVISION OF ASSESSMENTS, in charge of C. A. Bates. This division is charged with the preparation of the assessment-lists, and with the consideration of all reports and returns, except those received from distillers, rectifiers, and brewers, affording data from which assessments may be made; also, with keeping the bonded account, and with the consideration of claims for the allowance of drawback.

7. DIVISION OF APPOINTMENTS, ETC., Alexander H. Holt, chief clerk, in charge, assisted by Samuel J. Butterfield. This division is charged with all matters pertaining to appointments, commissions, leaves of absence, office-discipline, assorting and disposition of the mail, registry and keeping of all letters, with the care of the general files; and all matters relating to messengers, laborers, office-stationery, printing, advertising, and the preparation of blanks and blanks-books for the Bureau. This division is subdivided into five sections:

Section 1.—Miss J. M. Seavey, chief; in charge of copying, preparation and charge of press-copies, and recording the same.

Section 2.—Miss Annie E. Adams, chief; in charge of the registry of letters.

Section 3.—R. D. Swingle, chief; in charge of printing, circulars, specials, regulations, and blank forms.

Section 4.—George C. Kirby, chief; in charge of messengers and laborers, opening and disposition of the mail, and stationery for the Bureau.

Section 5.—Richard A. Charles, chief; in charge of the general files.

The foregoing constitute the internal working-force of the Bureau. The external machinery for the collection of the revenue, including an enumeration of leading classes of manufacturers, from whom largest amount of revenue is derived, is as follows:

At present there are two hundred and nine collection-districts in the

United States, with a corresponding number of collectors; these collectors employ to assist them twelve hundred and five deputies. Within their districts were six hundred and eighty-nine grain-distilleries registered, six hundred and fifty-six of which were operated during the fiscal year ended June 30, 1875, and four thousand and forty fruit-distilleries registered, three thousand nine hundred and forty-five of which were operated during the same fiscal year; also, twelve hundred and forty-seven rectifiers, five thousand three hundred and forty-eight wholesale, and one hundred and sixty-three thousand four hundred and fifty-five retail, liquor-dealers. During the fiscal year ended June 30, 1875, there were two thousand seven hundred and eighty-three brewers engaged in the manufacture of fermented liquors. There are employed ten hundred and seventy-eight gaugers, and twelve hundred and thirty-three storekeepers. There are nine hundred and eighty-three manufacturers of tobacco and snuff, and fifteen thousand and seventy-three cigar manufacturers; and there are employed thirty-two inspectors of tobacco, snuff, and cigars.

There are also employed ten supervisors and twenty-five revenue agents. At the time of my taking charge of the Bureau the latter were assigned to duty under the direction of the supervisors. There were also employed special clerks to supervisors, who acted under their direction, and performed substantially the same duty as revenue agents.

The frauds which were developed just previous to my assuming the office of Commissioner led to a change in the organization and direction of this force of agents, and on the 18th day of May I issued an order organizing a division of revenue agents, with Homer T. Yaryan, esq., as chief in charge, relieving supervisors of all responsibility in relation to directing the movements of said agents, transferring the same to Mr. Yaryan under my direction.

Subsequently, upon a careful examination of the law, I became convinced that there was no authority conferred therein for the employment of the special clerks to supervisors above referred to, and, in conformity therewith, an order was issued on the 31st day of August, informing supervisors that from and after that date the services of special clerks would be discontinued.

This action necessitated the assigning to duty, under the direction of each supervisor, two revenue agents, thereby leaving but five revenue agents, including the chief, to act under the immediate direction of this Office. There have been employed in the division of revenue agents, under the direction of Mr. Yaryan, twenty-five persons, in examining the returns of distillers and rectifiers, and comparing the same with transcripts of the books of wholesale liquor-dealers, covering the period from July 1, 1874, to the present time. These examinations have resulted in furnishing evidence by which the Government will be able to recover large amounts of tax upon spirits fraudulently manufactured by distillers, and have developed fraud in places not heretofore suspected, resulting in important seizures of distilleries and rectifying-houses. It may be safely stated that at least $1,000,000 in taxes and condemned property will be recovered through the agency of this division, which otherwise would probably have been lost to the Government.

The force of revenue agents is entirely inadequate to perform the duties contemplated by law, and I therefore earnestly recommend that Congress, at its approaching session, be requested to authorize by law the employment and payment of fifteen agents in addition to the present number. With such a force, I am confident that the country can be so thoroughly policed as to prevent the perpetration of fraud and greatly increase the revenue.

Report of work done in section 1, division 7, from July 1, 1874, to June 30, 1875.

Months.	Number of press-copy letters received, briefed, and registered.	Number of pages of press-copy received each month.	Number of pages of press-copy written each month.	Covering pages in record-books.	Number of pages of press-copy received over number recorded each month.	Number of pages of letter, legal-cap, and foolscap paper written and compared each month.	Number of letters folded for indorsing.	Number of letters ruled for indorsing.	Number of envelopes and labels addressed and compared.	Number of claims scheduled and compared.	Number of forms 51, 122, 23, 21½, 58, 60c, 83a, 130c, and 69 copied and compared.	Number of back letters briefed and registered.	Number of orders for press-copy letters received.	Number of pages of press-copy letters counted and arranged for records.	Number of pages of record-books compared.
1874.															
July	5,303	6,286	2,333	1,111	3,953	1,059	2,811	642	894	206	135	1,165	327	.....	1,269
August	4,279	5,282	792	389	4,490	1,220	2,837	323	1,177	.....	34	.....	321	3,117	405
September	3,653	3,963	2,566	1,266	1,397	820	2,765	726	1,435	90	614	.....	305	.....	.....
October	4,847	3,783	2,125	973	1,658	1,914	2,034	611	1,341	1,144	.....	1,509	342	.....	733
November	3,783	4,847	2,049	1,024	2,796	1,634	1,697	326	1,103	.....	29	1,460	328	9,871	824
December	4,686	6,210	2,594	1,220	3,616	1,612	2,546	523	1,453	.....	58	1,524	399	34,977	498
1875.															
January	4,812	6,448	2,733	1,367	3,710	1,778	1,135	141	1,110	.....	.....	1,636	374	23,436	308
February	4,398	5,860	1,420	698	4,440	1,712	2,713	552	3,318	10,000	.....	1,462	329	3,127	.....
March	7,587	9,130	3,312	1,580	5,818	2,509	2,483	811	2,408	.....	7	1,543	332	11,458	78
April	5,988	6,728	3,992	1,943	2,746	1,925	2,251	689	1,199	.....	.....	1,359	326	10,003	298
May	6,030	8,158	2,630	1,150	5,528	2,237	2,963	686	5,630	2,119	40	1,850	342	4,491	326
June	7,347	8,961	2,838	1,393	6,123	3,420	3,288	1,018	888	500	110	1,657	321	7,373	.....
Total	62,713	75,666	29,389	14,044	46,277	21,890	29,523	7,028	21,956	14,149	1,027	15,165	4,046	111,753	4,790

NOTE.—Number of pages of press-copy unrecorded July 1, 1874 53,723
Average number of pages of press-copies of letters received each month 6,305
Average number of pages of press-copy recorded each month 2,449
Average increase each month of pages of press-copy unrecorded 3,856
Number of pages of press-copy letters unrecorded for the fiscal year ended June 30, 1875 46,277

Total number of pages of press-copy unrecorded July 1, 1875 ..... 100,000—equal to 100 record-books.

It must be borne in mind that out of the seventy lady clerks employed in this Bureau only twenty are employed in this section, and that this number are engaged not only in recording press-copies, but on much miscellaneous work for other divisions, as will appear from the above statement. It will also be observed that there are one hundred thousand pages of press-copies unrecorded at the beginning of the present fiscal year. These are constantly fading, and should at once be recorded, and for the purpose of accomplishing this work I would recommend that Congress be requested to authorize the employment and payment, at the rate of nine hundred dollars ($900) per annum, of twenty-five additional lady clerks, for the period of six months from the 1st of January, 1876, at the end of which time, I trust, their services can be dispensed with.

There are now employed in this Bureau five messengers and fifteen laborers. The former receive a salary of eight hundred and forty dollars ($840) and the latter seven hundred and twenty dollars ($720) per annum. I would recommend that Congress be requested to authorize the employment and payment, at the rate of eight hundred and forty dollars ($840) per annum, of twenty-five messengers, instead of the five messengers and fifteen laborers at present authorized. I do this for the reason that they all perform similar labor, and the present force is inadequate.

Since the report of my predecessor, thirteen collection-districts have been abolished—that is, consolidated with those at present existing—thereby saving to the Government an annual expense of about $40,000.

I am convinced that further consolidations can be made, thereby greatly reducing expenses without injuriously affecting the collection of the revenue.

AMENDMENTS OF THE LAW RECOMMENDED.

Experience has developed the necessity of some changes in the internal-revenue laws, which I proceed to state.

1. *As to the forfeitures of distilleries.*—The present law (section 3332 Revised Statutes) provides that when a judgment of forfeiture in any case of seizure is recovered against any distillery having a registered producing capacity of less than one hundred and fifty gallons a day because no bond has been given, every still, doubler, worm, &c., therein shall be so destroyed as to prevent the use of the same, or any part thereof, for the purpose of distilling; and the material shall be sold as in case of other forfeited property.

This contemplates a judgment of forfeiture.

In the mountainous districts of several of the Southern States a great deal of illicit distilling of spirits, in remote and out-of-the-way localities, is carried on, to the great detriment of the revenue. The distilling-apparatus is of a simple and inexpensive nature, easily removed, and, when broken up, of little or no value. A proceeding *in rem* against such property is a mere farce, or would be so but for the costs which the United States must pay, which is a very serious matter, since nothing can be realized from the sale of the broken materials.

The practice has been in such cases for the revenue official making the seizure to destroy the property at once, taking the responsibility of being sued for the damages. No suit of the kind has been brought so far as this Office is advised, and for the reason, I suppose, that no one is willing to avow himself the owner or operator of the illicit still. But the proceeding is irregular, and authority should be conferred by law

upon the revenue officer to destroy the still where its guilt is evident, and provision be made for a just compensation to the owner making claim for the value of the property so destroyed and establishing its innocence.

2. *Special taxes.*—A special tax of twenty-five dollars is imposed upon the retail dealer in spirituous liquors, and he is defined to be one who sells, or offers for sale, foreign or domestic distilled spirits or wines in less quantities than five wine-gallons at the same time.

The wholesale liquor-dealer pays a special tax of one hundred dollars ($100) for the privilege of selling like spirits in quantities of not less than five wine-gallons at the same time.

The following questions have arisen in the construction of this law, and should be solved by legislation:

A is a retail liquor-dealer; B is his creditor and takes the entire stock of distilled spirits, belonging to A, in payment of his debt, either by negotiation or by purchase under execution. How shall B dispose of the goods? If in bulk, he becomes a wholesale liquor-dealer and must pay a special tax of one hundred dollars ($100) as a means of realizing his debt. If by retail, he cannot, under existing law, operate under A's license, and must pay a special tax of twenty-five dollars ($25) for the privilege. He might probably, consistently with law, get rid of the stock by sending the different kinds of liquor, in packages of not less than five gallons at a time, to a wholesale liquor-dealer to sell for him on commission; but this would be a tedious and costly process.

Again, can A, the retail liquor-dealer, sell his entire stock, even to a creditor, without becoming a wholesale dealer, and, therefore, liable to the tax of one hundred dollars ($100)?

It is obvious that additional legislation is needed to meet cases of the above character.

3. *Branding cigar-boxes.*—By the act of July 20, 1868, all cigars were required to be packed in boxes not before used for that purpose, containing certain quantities each, without any specification as to the material from which such boxes should be made.

In section 89 of the act, it was provided that all cigars which should be removed from any manufactory or place where cigars were made without the same being packed in boxes as required by said act, or without burning into each box with a *branding*-iron the number of cigars contained therein, the name of the manufacturer, and the number of the district and State, should be forfeited to the United States.

The nature of the branding here prescribed seems to contemplate that wood should be the material used in boxing the cigars.

But Congress by the act of June 6, 1872, section 31, provided that not only wood, but metal, paper, or other materials might be used, separately or in combination, for packing tobacco, snuff, and cigars, under such regulations as the Commissioner of Internal Revenue might establish.

In the Revised Statutes (sections 3362 and 3397) both of these provisions are retained, to wit, that which allows boxes of wood, metal, paper, or other materials to be used in the packing of cigars, and that which requires the burning into each box, with a burning-iron, the name of the manufacturer, the number of cigars, and the number of the district and State.

Cigars are packed largely in tin and paper boxes, and the manufacturers assert that it is wholly impracticable to burn into the boxes with a burning-iron the prescribed set of words.

The construction of the statutes in question was submitted, on the

recommendation of this Office, by you to the Attorney-General, who delivered his opinion on the 11th of October last, to the effect that there are such metals and paper as will admit of being branded with a hot iron, and that therefore the requirements of the statutes as to burning into each box the prescribed formula cannot be dispensed with.

Without expressing any opinion upon this issue of fact between the manufacturers and the Department of Justice, I am of opinion that Congress should be advised to so amend the law as to allow the Commissioner of Internal Revenue to prescribe other forms of marking the boxes than by burning with a hot iron where other materials for boxes are employed than wood.

4. *Gauging at wholesale liquor-dealers.*—I have given much consideration to the question whether the present plan of gauging of wholesale liquor-dealers' packages by United States gaugers could not be dispensed with, and am of the opinion that it is not only feasible and economical, but will be a better check upon fraud than obtains under the present system. It is estimated that the expense heretofore incurred by the Government for gauging at wholesale liquor-dealers' establishments amounts to about one-fourth the entire sum paid for gauging, or more than $250,000 per annum. It is believed that, if Congress will empower collectors to fill stamps upon application of wholesale liquor-dealers, giving full description of the packages they desire to draw from, a very simple system of checks can be adopted that will prevent the overissue of wholesale liquor-dealers' stamps to cover more spirits than was originally contained in the package drawn from. This system is based upon the fact that every package of spirits purchased by a wholesale liquor-dealer has been once gauged and stamped by a United States gauger, and that a complete record of its contents in proof and wine gallons is to be found in this Office.

5. *Matches.*—An amendment in the law in relation to friction-matches is needed. The present remedy in case of violation of the law is only a civil one. It should be made a criminal offense punishable by fine or imprisonment. The seizure of the matches and a suit for the statutory penalty are insufficient remedies where the violator of the law is without property.

6. *Revenue agents.*—I recommend that internal-revenue agents be clothed by law with power to make seizures of property when directed by the Commissioner of Internal Revenue; also to administer oaths, and, under the direction of this Office, to demand and obtain inspection of the books and papers of distillers, rectifiers, brewers, wholesale liquor-dealers, and manufacturers of tobacco, snuff, and cigars, which relate to their occupations.

7. I recommend that Congress invest the Commissioner with power to designate the points where collectors and supervisors shall establish and maintain their offices within their respective districts.

For changes in the law suggested in relation to the collection of taxes on distilled spirits, I refer to my recommendations under the head "Whisky frauds," and for other changes, to what is said under the head "Miscellaneous."

Finally, I estimate that the collections from all sources of internal revenue, during the current fiscal year, will amount to $122,000,000.

Respectfully,

D. D. PRATT,
Commissioner.

Hon. B. H. BRISTOW,
Secretary of the Treasury.

MEMORANDUM.

Since the foregoing report was prepared, the number of collection-districts has been still further reduced by consolidation, the present number being one hundred and sixty-one, (161;) and consequently the number of collectors dismissed the service as no longer necessary is forty-eight, (48.)

REPORT OF THE COMPTROLLER OF THE CURRENCY.

TREASURY DEPARTMENT,
OFFICE OF THE COMPTROLLER OF THE CURRENCY,
Washington, November 29, 1875.

SIR: I have the honor to submit for the consideration of Congress, in compliance with section three hundred and thirty-three of the Revised Statutes of the United States, the thirteenth annual report of the Comptroller of the Currency.

During the past year one hundred and seven banks have been organized, with an authorized capital of $12,104,000, and $4,794,180 of circulation; of which number two were gold banks, with $200,000 capital and $120,000 of circulation. Five banks have failed, with an aggregate capital of $1,000,000; and thirty-eight banks, with a total capital of $3,920,000, have gone into voluntary liquidation by votes of shareholders owning two-thirds of their capital stock.

The total number of national banks organized since the establishment of the national-banking system is 2,307. Of these, forty have failed, and one hundred and seventy-five have gone into voluntary liquidation, leaving 2,092 in existence on November 1 of this year.

Three of these banks, located in the city of New York, have no circulation, and two hundred and forty-one have reduced their circulation and withdrawn a portion of their bonds, under the act of June 20, 1874, one hundred and seventeen of them having deposited legal-tender notes and reduced the amount of their bonds on deposit as security for circulation to the minimum amount allowed by law.

Included in this aggregate are nine national gold banks, located in California, with a capital of $4,700,000, and circulation of $2,630,000.

The following table exhibits the resources and liabilities of the banks at the close of business on the first day of October, 1875—the date of their last report—the returns from New York, Boston, Philadelphia, and Baltimore, from the other redemption cities, and from the remaining banks of the country, being tabulated separately.

	New York City.	Boston, Philadelphia, and Baltimore.	Other reserve cities.*	Country banks.	Aggregate.
	48 banks.	97 banks.	91 banks.	1,851 banks.	2,087 banks.
RESOURCES.					
Loans and discounts				$499, 419, 352	$980, 222, 951
On U. S. bonds on demand	$4, 934, 674	$722, 109	$310, 860		
On other stocks, bonds, &c., on demand	50, 179, 384	14, 784, 940	9, 595, 886		
Payable in gold	3, 454, 276	22, 000	26, 590		
On single-name paper, without other security	16, 255, 100	9, 222, 315	8, 694, 494		
All other loans	127, 266, 299	149, 633, 581	85, 701, 091		
Overdrafts	352, 388	95, 747	450, 310	3, 570, 039	4, 468, 484
Bonds for circulation	24, 806, 100	52, 220, 700	29, 623, 650	263, 671, 250	370, 321, 700
Bonds for deposits	650, 000	550, 000	2, 577, 000	10, 320, 200	14, 097, 200
U. S. bonds on hand	7, 856, 550	583, 700	1, 943, 300	3, 596, 400	13, 969, 950
Other stocks and bonds	10, 319, 933	3, 481, 071	3, 810, 951	15, 893, 090	33, 505, 045
Due from reserve agents		17, 410, 199	14, 968, 908	53, 322, 152	85, 701, 259
Due from other national banks	13, 693, 007	8, 862, 222	6, 626, 166	17, 827, 374	47, 028, 769
Due from other banks and bankers	1, 850, 630	1, 372, 972	2, 329, 229	6, 410, 938	11, 963, 769
Real estate, furniture, and fixtures	9, 455, 469	5, 900, 048	5, 185, 108	21, 826, 023	42, 366, 648
Current expenses	1, 770, 932	823, 096	907, 926	4, 339, 259	7, 841, 213
Premiums	1, 404, 044	602, 179	814, 624	5, 849, 184	8, 670, 991
Checks and other cash items	2, 207, 649	967, 070	859, 429	8, 724, 725	12, 758, 873
Exchanges for clearing-house	50, 467, 798	19, 722, 724	4, 952, 342		75, 142, 864
Bills of other national banks	1, 800, 970	3, 830, 406	2, 044, 741	10, 852, 790	18, 528, 827
Fractional currency	282, 821	585, 221	217, 875	1, 509, 714	2, 595, 631
Specie	4, 955, 625	606, 965	932, 706	1, 555, 034	8, 050, 330
Legal-tender notes	17, 040, 091	13, 692, 980	12, 928, 635	32, 797, 028	76, 458, 734
U. S. certificates of deposit	37, 400, 000	7, 805, 000	2, 705, 000	900, 000	48, 810, 000
Five per cent. redemption fund	1, 072, 044	2, 326, 188	1, 266, 741	11, 568, 219	16, 233, 192
Due from U. S. Treasurer	282, 300	842, 911	325, 198	2, 003, 359	3, 453, 768
Totals	389, 758, 084	316, 696, 344	199, 798, 820	975, 956, 060	1, 882, 209, 308
LIABILITIES.					
Capital stock	68, 500, 000	80, 326, 965	48, 455, 905	307, 546, 879	504, 829, 769
Surplus fund	22, 515, 490	23, 158, 578	13, 773, 320	74, 908, 688	134, 356, 076
Undivided profits	11, 943, 200	5, 371, 329	4, 661, 877	30, 988, 557	52, 964, 954
National bank notes outstanding	18, 309, 317	43, 900, 147	25, 476, 540	230, 664, 375	318, 350, 379
State bank notes outstanding	90, 590	138, 344	33, 605	509, 809	772, 348
Dividends unpaid	228, 460	1, 709, 621	132, 562	1, 932, 892	4, 003, 535
Individual deposits	173, 494, 399	123, 151, 126	74, 699, 409	293, 234, 685	664, 579, 619
U. S. deposits	297, 411	240, 344	1, 121, 543	4, 842, 233	6, 507, 531
Deposits of U. S. disbursing officers	38, 366	15, 603	879, 346	3, 337, 881	4, 271, 196
Due to national banks	69, 039, 515	29, 508, 205	17, 034, 010	14, 228, 953	129, 810, 683
Due to other banks and bankers	25, 176, 336	7, 265, 173	10, 903, 958	6, 573, 064	49, 918, 531
Notes and bills re-discounted		175, 747	817, 623	4, 261, 063	5, 254, 433
Bills payable	125, 000	1, 729, 151	1, 809, 122	2, 926, 961	6, 590, 234
Totals	389, 758, 084	316, 696, 344	199, 798, 820	975, 956, 060	1, 882, 209, 308

* The reserve cities, in addition to New York, Boston, Philadelphia, and Baltimore, are Albany Pittsburgh, Washington, New Orleans, Louisville, Cincinnati, Cleveland, Chicago, Detroit, Milwaukee Saint Louis, and San Francisco.

The following table exhibits the resources and liabilities of the national banks in operation, at corresponding periods for the last five years.

	OCTOBER 2, 1871.	OCTOBER 3, 1872.	SEPTEMB'R 12, 1873.	OCTOBER 2, 1874.	OCTOBER 1, 1875.
	1,767 banks.	1,919 banks.	1,976 banks.	2,004 banks.	2,087 banks.
RESOURCES.					
Loans and discounts	$827, 689, 625	$872, 520, 104	$940, 233, 304	$949, 870, 628	$980, 222, 951
Overdrafts	3, 862, 585	4, 677, 819	3, 986, 812	4, 524, 164	4, 468, 484
U. S. bonds for circulation	364, 475, 800	382, 046, 400	388, 330, 400	383, 254, 800	370, 321, 700
U. S. bonds for deposits	28, 087, 500	15, 479, 750	14, 805, 000	14, 691, 700	14, 097, 200
U. S. bonds on hand	17, 753, 650	12, 142, 550	8, 819, 850	13, 313, 550	13, 989, 950
Other stocks and bonds	24, 517, 059	23, 533, 152	23, 714, 035	27, 807, 827	33, 505, 045
Due from reserve agents	86, 878, 609	80, 717, 071	96, 134, 121	83, 885, 127	85, 701, 259
Due from national banks	43, 525, 362	34, 486, 594	41, 413, 680	39, 695, 309	47, 028, 769
Due from State banks	12, 772, 670	12, 976, 878	12, 022, 873	11, 196, 612	11, 963, 769
Real estate, furniture and fixtures	30, 089, 784	32, 276, 498	34, 661, 823	38, 112, 926	42, 366, 648
Current expenses	6, 153, 370	6, 310, 429	6, 985, 437	7, 658, 739	7, 841, 213
Premiums paid	5, 500, 890	6, 546, 849	7, 752, 844	8, 376, 659	8, 670, 091
Cash items	13, 964, 971	14, 916, 784	11, 433, 913	12, 296, 417	12, 758, 873
Clearing-house exchanges	101, 165, 855	110, 086, 315	88, 926, 004	97, 383, 687	75, 142, 864
National-bank notes	14, 270, 951	15, 787, 296	16, 103, 842	18, 450, 013	18, 528, 837
Fractional currency	2, 095, 485	2, 151, 748	2, 302, 775	2, 224, 943	2, 595, 631
Specie	13, 252, 998	10, 229, 757	19, 868, 469	21, 240, 945	8, 050, 330
Legal-tender notes	106, 987, 666	102, 074, 104	92, 347, 663	80, 016, 946	76, 458, 734
Three per cent. certificates	7, 180, 000	1, 555, 000	.....	.....	.....
U. S. certificates of deposit	.....	6, 710, 000	20, 610, 000	42, 830, 000	48, 810, 000
Clearing-house certificates	20, 322, 069	8, 632, 000	175, 000	.....	.....
Five-per-cent. redemption fund	.....	.....	.....	20, 349, 950	16, 233, 192
Due from U. S. Treasurer	.....	.....	.....	.....	3, 453, 768
Totals	1, 730, 566, 899	1, 755, 857, 098	1, 830, 627, 845	1, 877, 180, 942	1, 882, 209, 308
LIABILITIES.					
Capital stock	458, 255, 696	479, 629, 144	491, 072, 616	493, 765, 121	504, 829, 769
Surplus fund	101, 112, 672	110, 257, 516	120, 314, 499	128, 958, 107	134, 356, 076
Undivided profits	42, 008, 714	46, 623, 784	54, 515, 132	51, 484, 437	52, 964, 954
National bank circulation	315, 519, 117	333, 495, 027	339, 981, 799	333, 225, 296	318, 350, 379
State bank circulation	1, 921, 056	1, 567, 143	1, 188, 853	964, 997	772, 348
Dividends unpaid	4, 540, 195	3, 149, 750	1, 402, 548	3, 515, 847	4, 003, 535
Individual deposits	600, 868, 486	613, 290, 701	622, 685, 563	669, 068, 996	664, 579, 619
U. S. deposits	20, 511, 936	7, 853, 772	7, 829, 328	7, 302, 154	6, 507, 531
Deposits of U. S. disbursing officers	5, 393, 599	4, 563, 834	8, 098, 560	3, 927, 828	4, 271, 196
Due to national banks	131, 730, 713	110, 047, 348	133, 672, 733	125, 102, 050	129, 810, 683
Due to State banks and bankers	40, 211, 972	33, 789, 084	39, 298, 148	50, 718, 008	49, 918 531
Notes and bills re-discounted	3, 964, 552	5, 549, 432	5, 987, 512	4, 197, 372	5, 254, 453
Bills payable	4, 528, 191	6, 040, 563	5, 480, 554	4, 950, 727	6, 590, 234
Totals	1, 730, 566, 899	1, 755, 857, 098	1, 830, 627, 845	1, 877, 180, 942	1, 882, 209, 308

THE NATIONAL BANKING SYSTEM.

The proposition to substitute Treasury notes in place of national bank notes has been frequently advanced since the establishment of the national banking system, and its discussion has been general throughout the country during the past year.

During the war of 1812 a large amount of various kinds of Treasury-notes was issued. The policy of the State banks at that time seemed to be antagonistic to the government, and to correct this antagonism various propositions were made, with a view to identify the interests of the various monetary institutions in some degree, at least, with those of the United States. Fifty years later, in 1863, this was accomplished by the establishment of the national banking system. A passing allusion to the legislation and the discussions upon this subject during both periods will, perhaps, be useful at the present time. A reference to the first period will exhibit the different kinds of Treasury-notes which were temporarily issued, and withdrawn at the

close of the war, and the efforts which were made to conciliate the State banks. A like reference to the later period will show that the national banking system was authorized as a permanent system, and that the issue of Treasury-notes was an expedient devised to meet a great national emergency; and that it was the intention of Congress in this, as in the former instance, to withdraw such issues as speedily as possible after the close of the war.

War was declared with Great Britain on June 11, 1812. Specie payments were suspended, except in New England, August 31, 1814. Peace was restored February 11, 1815. Specie payments were nominally resumed February 2, 1817. The charter of the first Bank of the United States expired March 4, 1811, and the second Bank of the United States was not authorized until April 3, 1816. Mr. Crawford, then Secretary of the Treasury, estimated that, during the four years ending in 1815, the bank circulation was increased in volume from $29,000,000 to $99,000,000.*

Many of the notes of city banks were taken at a discount of twenty per cent.; those of the country banks at twenty to fifty per cent.† Specie almost entirely disappeared from circulation, and, in addition to the notes issued by State banks, large amounts of unauthorized currency were circulated by other corporations and by individuals in notes of denominations from six cents to ten dollars. Credit-money was plenty, rates of interest low, and borrowers were solicited by tempting offers to use the idle funds in the banks.

The Treasury department added largely to the already abundant circulation, issuing large amounts of Treasury-notes. Many of these notes were deposited with such banks as consented to receive them, the government meanwhile refusing the notes of those banks which declined to accept the Treasury-notes—usually the stronger banks. The whole amount of Treasury-notes, absolute and contingent, which was authorized between June 30, 1812, and February 24, 1815, was $60,500,000, of which amount $36,680,7.4 was issued.‡

The notes authorized prior to February 24, 1815, bore interest at the rate of five and two-fifths per centum § a year, and were receivable in payment of all duties and taxes laid by the authority of the United States, and of all public lands sold by said authority; and when so received interest was to be computed at the rate of "one cent and one-half a cent per day" on every one hundred dollars of principal, each

*His estimate of the circulation, made in 1820, was as follows: 1813, $62,000,000; 1815, $99,000,000; 1819, $45,000,000 to $53,000,000. (Elliot's Funding System, p. 735.)

†In 1812 Bank of England notes were at a discount of twenty and three-fourths per cent., in 1813, of twenty-three per cent., and in 1814, of twenty-five per cent. In 1812, as much wheat could be purchased for ninety shillings of gold as for one hundred and fifteen shillings of paper; and in 1813 as much for seventy-four shillings of gold as for one hundred and eleven shillings of paper.—"*Banks and Bankers,*" *by D. Hardcastle, jr.; London*, 1842, *p.* 126.

‡

Under act of June 20, 1812		$5,000,000
Under act of February 25, 1813		5,000,000
Under act of March 4, 1814		10,000,000
Under act of December 26, 1814		8,318,400
Under act of February 24, 1815—$100 notes	$4,969,400	
do. do. small Treasury-notes	3,392,994	8,362,394
Total amount issued		36,680,794

(Report of Secretary Crawford, 1820, p. 165.)

§ The substitute proposed for the legal-tender act which passed the House of Representatives February 6, 1862, contained a section providing for the issue of transferable certificates, bearing interest at the rate of 5⅔ per cent. per annum.—*Spaulding's History of the Legal Tender Paper Money*, p. 94.

month being reckoned as thirty days. These notes were depreciated from eight to ten per cent. below bank notes, which bore no interest but were redeemable in specie.

The act of February 24, 1815, authorized the issue and re-issue of Treasury-notes to an amount not exceeding $25,000,000, upon principles essentially different from those governing prior issues.* These notes might be of any denomination. If of a denomination less than one hundred dollars, they were designated as "small Treasury-notes," were payable to bearer, and bore no interest. If of a denomination of one hundred dollars or upward, they were payable to order, transferable by indorsement, and bore interest at the same rate as the notes of $100 and upward previously authorized. The principal and interest were not payable at any specified time, but the notes were everywhere receivable in all payments to the United States. The holders of the small Treasury-notes could exchange them at pleasure, in sums of not less than one hundred dollars, for certificates of funded stock bearing interest at seven per cent. The notes of the denomination of one hundred dollars and over were exchangeable for certificates of funded stock, bearing interest at six per cent.; and by that act the holders of all Treasury-notes previously issued were likewise authorized to convert the same into certificates of funded debt bearing interest at six per cent.

"The Treasury-notes which were issued under acts passed prior to February 24, 1815, were, for the most part, of a denomination too high to serve as a current medium of exchange; and it was soon ascertained that the small Treasury-notes, fundable at an interest of seven per cent., though of a convenient denomination for common use, would be converted into stock almost as soon as they were issued."†

The issue of the first description of notes was not restrained, but that of the small Treasury-notes was limited to cases of peculiar urgency; and the whole amount of the latter notes which had been issued and re-issued on September 30, 1815, was $4,142,850.

The Secretary of the Treasury, in his report for 1813, refers to some of the plans which were proposed for remedying the monetary evils of the day, and for the resumption of specie payments. He endeavored to associate the banks, with a view to furnish "a uniform currency," and also, through their agency "in circulating Treasury-notes, to overcome the inequalities of the exchange." These attempts were, he acknowledges, not successful. Another plan was proposed, with the design "to curtail the issues of bank-notes, to fix the public confidence in the administration of the affairs of the banks, and to give to each bank a legitimate share in the circulation."‡ The establishment of a national bank with large capital and circulation was regarded as the best and perhaps the only adequate resource to relieve the country and the government; and on April 30, 1815, Congress by resolution declared that "from and after the 20th of February next (1817) no duties, taxes, debts, or sums of money accruing or becoming payable to the United States ought to be collected or received otherwise than in the legal currency of the United States, or Treasury-notes, or notes of the Bank of the United States, or any notes of banks which are payable and paid on demand in the said legal currency of the United States."

A bill was brought before the legislature of New York in 1815 "impos-

* Report of the Secretary of the Treasury, 1815, p. 13.

† Report of the Secretary of the Treasury, 1815, p. 26.

‡ The acts of July 12, 1870, and June 20, 1874, contained provisions for the redistribution and equalization of the national-bank currency, which provisions were repealed by the act of January 14, 1875.

ing a penalty of twelve per cent. on any bank within that commonwealth which would not pay its notes on demand;"* but its passage in that year was prevented by the exertions of the banks and their agents. It subsequently, however, became a law,† and specie payments were at least nominally resumed on that day. If places of redemption had been required at one or more of the commercial centers, the redemption would have been complete; and the banks which could not comply with such a provision would have been forced into liquidation.

A similar system proposed in 1815 *and* 1831.

A magazine writer, in 1815,‡ proposed a plan which is the first conception, so far as I am aware, of the principles which distinguish the the present national-bank system, and which was that the public funds should serve, in the absence of specie, as the basis and support and limit of a paper currency. The proposition was "that the banks be obliged, until they can resume specie payments, to pay their notes, in sums of not less than one hundred dollars, in United States six per cent. stock at par; or, if the stock bore a less rate of interest, at the price of that stock in the market." It was claimed that this would be a certain check against the immoderate issue of paper money. Most of the banks, it was urged, held considerable amounts of such funds, purchased at a low price, and could realize a profit by using it in payment of their debts. If the proposed convertibility were authorized, their notes, then so much depreciated, would at once appreciate in value.

The six per cent. stock, at par, was proposed as a standard by which to fix the minimum value of bank-notes, such notes being convertible, at the option of the holders, into the stock at its market-price; so that one hundred dollars of the notes might be better, but not worse, than one hundred dollars of six per cent. stock. It was also proposed that a national bank should be established, with the obligation, under a heavy specific penalty, of paying its notes and debts of every kind in cash or in funded stock. The State banks would be compelled to adopt a similar system, or, what would amount to the same thing, to pay their notes with the notes of this national institution. "The success of the plan would not be doubtful if Congress could be persuaded to provide for the payment of the interest of the national debt in specie. Nothing but necessity can excuse the payment of the national creditors with depreciated money. During the war that necessity existed, but it exists no longer."

"To provide the means for the payment of the interest on the public debt," it was proposed "that the duties upon imports be receivable in cash only." "The payment of the interest of the public debt in specie, combined with the assurance of the national good-will, security, and resources,

*On January 14, 1875, Congress fixed a date (January 1, 1879) for the resumption of specie payments, and on March 22, 1875, the New York legislature passed the following act:

"SECTION 1. All taxes levied and confirmed in this State on and after January 1, 1879, shall be collected in gold, United States gold-certificates, or national-bank notes which are redeemable in gold on demand.

"SEC. 2. Every contract or obligation, made or implied, after January 1, 1879, and payable in dollars, but not in a specified kind of dollars, shall be payable in United States coin of the standard of weight and fineness established by the laws of the United States at the time the contract or obligation shall have been made or implied."

†"A Short History of Paper Money and Banking in the United States," &c., by William M. Gouge, Philadelphia, 1833, p. 85.

‡From the Analectic Magazine (Philadelphia) for December, 1815, p. 489.—This article, signed "W.," is entitled "On banks and paper currency," and is a sprightly review of an essay published in Philadelphia, entitled "The History of a Little Frenchman and his Bank-notes. Rags! Rags! Rags!"

would soon impart to the whole capital a specie value; that capital would then become a solid foundation for a paper currency—a standard to measure it and keep it steady—inferior only to specie itself. With such a support we know not whether such a currency might not be permanently adopted as an improvement in political economy." "There would be no danger of an over-issue, for no man of ordinary prudence will retain in his possession paper money for which he has not good use, when he can immediately convert that money into well-secured, readily-salable stock, yielding an annual interest paid in specie."

Such a plan, it was contended, would be likely to result in establishing a uniform currency. It would create an additional demand for the public funds, and increase their value. The banks would be obliged to invest their capital in national stock to answer the demands of their creditors, and it would of course be for their interest to keep up its price; by which means private and public credit would be indissolubly linked together, and a new moral bond acquired to strengthen the Union. "The various currencies, as they now exist, are not congenial, but rather adverse, to the union of the States. Were they separated, each bank might, nevertheless, preserve a certain credit, but on the proposed plan a separation would ruin them all; and this fact affords an additional argument for the issue of a currency which would habituate the people to regard the faith of their federal government as the standard of value; which would facilitate loans, should a war for the maintenance of our rights become unavoidable; which would identify every man's fortune, as well as his freedom, with the general security, create a deep and universal interest in the conservation of good order, government, and law, and thus enlist every motive, selfish and generous, and every principle, sordid as well as liberal, into the service of this free, confederated republic."

A sum usually somewhat exceeding the capital of the Bank of England is permanently loaned by that institution to the government, and these funds are held, in the language of Albert Gallatin, "as the best security to the holders of its notes and to depositors." In discussing the propriety and practicability of incorporating a similar provision into the banking system of the United States, Mr. Gallatin found the only objection to lie in the fact that while in England the large amount of the public debt, as compared with the capital of the banks, enabled the latter to use such debt as a security for their circulating notes, in the United States the banking capital of the country was necessarily so much larger than the entire amount of all other public stocks, that such a measure was impracticable.

At the date of Mr. Gallatin's essay (1831) the debt of the Government was in process of rapid reduction, and within the next four years was entirely extinguished, while the banking capital was largely above two hundred millions, and rapidly growing with the increasing commerce of the country. Under these circumstances he suggested a resort to mortgages on real estate, for want of public stocks, which plan, however, he found liable to the objection that the accommodations which the banks could, in that case, afford to individuals, might be too much curtailed; and he concludes that "if these objections can be removed, the plan proposed would give to the banking system of the United States a solidity, and inspire a confidence, which it cannot otherwise possess."

The same high authority also refers to the proposed issue of Treasury notes at that time as follows:

The proposition has not been suggested to resort to a third, though the most simple, mode—that of issuing, without the aid or machinery of any bank whatever, a Government paper payable on demand in specie.

The general objections to a paper issued by government have already been stated at large. Yet it must be admitted that there may be times when every other consideration must yield to the superior necessity of saving or defending the country. If there ever was a time, or a cause, which justified a resort to that measure, it was the War of the Independence. It would be doing gross injustice to the authors of the Revolution and founders of that independence, to confound them with those governments which, from ambitious views, have, *without necessity, inflicted that calamity on their subjects.*

The old Congress, as the name purports, were only an assembly of plenipotentiaries, delegated by the several colonies or States. They could only recommend, and had not the power to lay, taxes. The country was comparatively poor; extraordinary exertions were necessary to resist the formidable powers of Great Britain. Those exertions were made, and absorbed all the local resources; the paper money carried the United States through the most arduous and perilous stages of the war, and, though operating as a most unequal tax, it cannot be denied that it saved the country. It is to be hoped that a similar state of things will not again occur; but at all events the issue of a government paper *ought to be kept in reserve for extraordinary exigencies.*

Many of the propositions for raising the necessary means for conducting the war of 1812, and for the resumption of specie payments at the close of the war, were identical with those proposed during the recent civil war, and with the present plans for the resumption of specie payments. The war of 1812 was prosecuted, as has been seen, by means of loans and bank credits, and by the issue of Treasury-notes. Just prior to the late civil war, in the year 1860, temporary loans were made by the government at twelve per cent. interest; and during the year 1861 a large amount of government obligations was issued, of which $100,000,000 were time, seven and three-tenths per cent. Treasury-notes, and $50,000,000 were demand-notes.

Discussion and passage of the national bank act.

In December, 1861, the Secretary of the Treasury proposed two methods for obtaining the necessary means for carrying on the war. His first proposition was to substitute demand-notes, payable in coin, in place of the notes of private corporations. The second was the gradual issue of national-bank notes, secured by the pledge of United States bonds, to replace the existing bank-notes authorized by the laws of the several States. The first plan had already been partially adopted by the issue of fifty millions of dollars in demand-notes; but the possible disasters which might result from a continuation of the expedient outweighed, in the opinion of the Secretary, any advantages which could be derived from it, and his second proposition was therefore urgently recommended by him.

The advantages claimed by the latter plan were, a currency of uniform security and value, protection from losses in discounts and exchanges, increased facilities to the government in obtaining loans, a diminution of the rate of interest, or a participation by the people in the profits of circulation, an avoidance of the perils of a great money monopoly, and a distribution of the bonds of the nation to the leading monetary associations of the country, thus identifying their interests with those of the government.

The report of the Secretary was prepared with the expectation, then prevalent, that the war would be of short duration. Soon, however, the magnitude of the struggle became evident, and the large drafts upon the Treasury, caused by the expenditure of more than a million of dollars daily, made it plain that the urgent necessities of the

government could not be supplied through the associated action of the existing banks, nor depend wholly upon the sale of its bonds.

A general suspension of specie payments took place on December 28, 1861, and on February 25 and July 11, 1862, Congress passed two acts authorizing the issue, in the aggregate, of three hundred millions of dollars of Treasury-notes—the later act, however, reserving fifty millions for the redemption of temporary loans, to be issued and used when necessary for that purpose. These notes were, by the terms of the law, made a legal tender, and fundable into a bond bearing interest at six per cent. in gold; and the demand-notes, amounting to sixty millions of dollars, which had been previously issued, were also, upon the request of the Secretary of the Treasury, and at the solicitation of banks in New York City, made a legal tender by the act of March 17, 1862.

The immediate necessities of the government compelled the partial adoption at that time of the first plan of the Secretary, and further consideration of the second was, for the time being, deferred. Large amounts of government notes were issued; but the notes of private corporations still continued in circulation, the amount of the latter increasing during the year ending November 1, 1862, from $130,000,000 to $167,000,000.

A national-bank bill was prepared in December, 1861, by Mr. Spaulding, of New York, in accordance with the second plan of the Secretary, and printed for the use of the Committee of Ways and Means; but, after some discussion in opposition to the bill, it was laid aside. In December, 1862, the Secretary, in his annual report, called the attention of Congress to his second recommendation of the year previous, and again urged his objections to the issue of United States notes. The principal objections to the latter circulation, as a permanent system, were thus stated by him: "(1) The facility of excessive expansion when expenditures exceed revenue; (2) The danger of lavish and corrupt expenditure, stimulated by facility of expansion; (3) The danger of fraud in management and supervision; (4) The impossibility of providing it in sufficient amounts for the wants of the people whenever expenditures are reduced to equality with revenue, or below it."

In discussing the fourth objection, he says:

> Whenever the country shall be restored to a healthy, normal condition, and receipts exceed expenditures, the supply of United States notes will be arrested and must progressively diminish. Whatever demand may be made for their redemption in coin must hasten this diminution, and there can be no re-issue; for re-issue, under the conditions, necessarily implies disbursement, and the revenue, upon the supposition, supplies more than is needed for that purpose. There is then no mode in which a currency in United States notes can be permanently maintained except by loans of them, when not required for disbursement, on deposits of coin or pledge of securities, or in some other way. This would convert the Treasury into a government bank with all its hazards and mischiefs. If these reasonings be sound, little room can remain for doubt that the evils certain to arise from such a scheme of currency, if adopted as a permanent system, greatly overbalance the temporary though not inconsiderable advantages offered by it.

Among the advantages which would arise from the second plan the following were urged:—That the United States bonds would be required for banking purposes; a steady market would be established and their negotiation greatly facilitated; a uniformity of price for the bonds would be maintained at a rate above funds of equal credit but not available to banking associations. "It is not easy to appreciate the full benefits of such conditions to a government obliged to borrow;" it will "reconcile as far as practicable the interests of existing institutions with those of

the whole people," and will supply "a firm anchorage to the Union of the States."

On February 2, 1863, the banking bill previously introduced in the House was reported from the Finance Committee of the Senate with amendments, and ten days later passed that body by a vote of 23 to 21. It passed the House of Representatives on the 20th of the same month by a vote of 78 to 64, and was approved by the President February 25, 1863.

Senator Sherman, who reported the bill from the Finance Committee, in a speech delivered at that time, said: "We are about to choose between a permanent system, designed to establish a uniform national currency based upon the public credit, limited in amount, and guarded by all the restraints which the experience of men has proved necessary, and a system of paper-money without limit as to amount except for the growing necessities of war. In the consideration of such a question we surely should scrifice all local interests, all pride of opinion; and while acting promptly under the pressure of events, we should bring to our aid all the wisdom of united counsels, and all the light which the experience of former generations of men can give us. * * Another practical objection to these United States notes is, that there is no mode of redemption. They are safe; they are of uniform value; but there is no mode pointed out by which they are to be redeemed. No one is bound to redeem them. They are receivable, but not convertible. They are debts of the United States, but they cannot be presented anywhere for redemption. No man can present them, except for the purpose of funding them into the bonds of the United States. They are not convertible; they lack that essential element of any currency. * *

"Another objection is, that they can only be used during the war. The very moment that peace comes, all this circulation that now fills the channels of commercial operations will be at once banished; they will be converted into bonds; and then the contraction of prices will be as rapid as the inflation has been. The issue of government notes can only be a temporary measure, and is only intended as a temporary measure to provide for a national exigency. * * But it is asked, why look at all to the interests of the banks; why not directly issue the notes of the government, and thus save to the people the interest in the debt represented by the notes in circulation? The only answer to this question is that history teaches us that the public faith of a nation alone is not sufficient to maintain a paper-currency. There must be a combination between the interests of private individuals and the government."

Mr. Spaulding, the author of the legal-tender act, in reporting the same to the House, said: "The bill before us is a war-measure, a measure of necessity and not of choice, presented by the Committee of Ways and Means to meet the most pressing demands upon the Treasury to sustain the Army and Navy." This was the view taken throughout the whole discussion of the legal-tender act. On the day of the passage of the national-bank bill, he said he "should vote for it, not that it would afford any considerable relief to the Treasury in the next two or three years, but because he regarded it as the commencement of a permanent system for providing a national currency that would, if wisely administered, be of great benefit to the people and a reliable support to the government in the future." And more recently, in a letter addressed to this Office, he says that "all the advocates of the legal-tender act, while it was pending in Congress, based their arguments upon the necessity of its passage as a temporary relief to the Treasury during the war, and not as a permanent policy of the government; on the contra-

ry, the national banking law was advocated as a permanent system of national currency and banking for the whole country.

The act of March 3, 1863, authorized an additional issue of $150,000,000 of United States Treasury-notes, and the right to exchange legal-tender notes for six per cent. bonds was limited to July 1, 1863. The act of June 30, 1864, provided that the total amount of United States notes issued, or to be issued, should not exceed $400,000,000, and such additional sum, not exceeding $50,000,000, as might be lawfully required for the redemption of temporary loans.

The Secretary of the Treasury in his report for December, 1865, expressed the opinion that the legal-tender acts were war-measures, and ought not to remain in force one day longer than should be necessary to enable the people to prepare for a return to the gold standard. He also urged as a serious objection to the issue of United States notes as a permanent currency, that "the paper-circulation of the country should be flexible, increasing and decreasing according to the requirements of legitimate business; while, if furnished by the government, it would be quite likely to be governed by the necessities of the Treasury or the interests of parties, rather than the demands of commerce and trade; besides, a permanent government currency would be greatly in the way of public economy, and would give to the party in possession of the government a power which it might be under strong temptations to use for other purposes than the public good—keeping the question of the currency constantly before the people as a political question, than which few things would be more injurious to business."

The House of Representatives during the same month passed a resolution, by a vote of 144 yeas to 6 nays, "cordially concurring in the views of the Secretary of the Treasury in relation to the necessity of the contraction of the currency, with a view to as early a resumption of specie payments as the business interests of the country will permit." In order to carry into effect this resolution Congress, by an act approved March 12, 1866, authorized the funding of the legal-tender notes, and under the operation of that act more than $72,000,000 were retired. In January, 1868, any further reduction of the volume of legal-tender notes was prohibited, the amount then remaining outstanding being $356,000,000.

On March 18, 1869, an act was passed, in which the United States "solemnly pledges its faith to make provision at the earliest practicable period for the redemption of United States notes in coin." Section six of the act of June 20, 1874, provides that "the amount of United States notes outstanding and to be used as a part of the circulating medium shall not exceed the sum of $382,000,000, which said sum shall appear in each monthly statement of the public debt, and no part thereof shall be held or used as a reserve;" and the act of January 14, 1875, authorizes the increase of the circulation of national banks, without respect to the limit theretofore existing, and provides that whenever, and so often, as circulating-notes shall be issued to banking associations, it shall be the duty of the Secretary of the Treasury to redeem the legal-tender United States notes to the amount of eighty per centum of the sum of national-bank notes so issued, and to continue such redemption as such circulating-notes shall be issued until there shall be outstanding the sum of $300,000,000 of such legal-tender United States notes, and no more; and that, on and after January 1, 1879, he shall redeem in coin the United States legal-tender notes then outstanding, on their presentation for redemption at the office of the

assistant-treasurer of the United States in the city of New York, in sums of not less than fifty dollars.

A banking system similar to that now existing was suggested, as has been seen, in 1815, and, later, in 1831; and it is said that a similar policy was proposed by Alexander Hamilton, before his appointment to the Secretaryship of the Treasury, when, on being asked by Washington, "What is to be done with our terrible debt?" he answered, "Bank on it; it is our only available capital, and the best in the world."

During the war of 1812 a large amount and a variety of kinds of Treasury notes were issued. The policy of the State banks, aided by the State-sovereignty sentiment, opposed any system of separate or independent fiscal agency of the government. The desire then was to conciliate the banks by harmonizing the interests of the different monetary institutions with those of the national administration. At a later period the system which would have given to the banks of the United States "a solidity and inspire a confidence in them which they cannot otherwise possess," could not be carried into effect, because the bank capital of the country far exceeded the amount of the national debt. Fifty years later (1863) a clear harmony of interests was effected between the banks and the government by the establishment of the present national banking system, and at the same time the public was supplied with a stable circulating medium; the change producing none of the inconveniences or disturbances which usually accompany radical modifications in the monetary system of a country.

The government currency won its honors and secured the confidence of the people at a time when no other form of currency then existing could command general circulation. It borrowed the war debt from the people, and at the same time supplied them with the indispensable medium of exchange in all business transactions. Its necessity in the time of our war overrode all the prejudices against the use of a paper-currency, whether those prejudices arose from principles of constitutional construction or from doctrines of political economy. It was felt to be equally as good as the government. It rested upon its solvency; and the friends of the Union accepted it as the representative of the nation's faith and credit. The government was then contracting debt day by day, and the people cheerfully received its promises to pay in exchange for their commodities and services. It purchased largely, and its creditors were content to wait until it should regain the ability to redeem its promises.

The war was well over before the national banking system came fully into operation,* at which time the Treasury and its depositories in the principal cities found themselves unequal to the task of disposing of its bonds, funding its miscellaneous issues, and receiving and disbursing its internal revenue. Just in season for this service the national banking system became well matured and established in every center of business throughout the country; and these institutions at once invested their capital in government bonds, and assisted in disposing of its securities. Secretary Chase says that the organization of the system at once inspired faith in the securities of the government, and more than any other one cause enabled him to provide for the prompt payment of the soldiers and the public creditors; and adds, that he "risks nothing in saying that, within the present year, the benefits of

* The Treasury-notes issued by the government, including the 7-30 and compound-interest notes, were, in 1865, much greater in amount than at any other time. The amount of national-bank notes in circulation on January 1, 1864, was $280,000; on July 1, 1864, it was only $31,234,420; and on July 1, 1865, about three months after the close of the war, it was but $146,336,030.

the system will have so proved themselves to the sense and patriotism of the people that it will be beyond the reach of successful assault."

The second plan of Secretary Chase was carried into effect by the passage of the national banking act, and its success has more than fulfilled every expectation. The interest-bearing, convertible, and interchangeable Treasury-notes, issued in the early days of the government, were withdrawn from circulation two years after the close of the war of 1812; and it is evident, from the reports of finance ministers, from the debates in Congress at the time of the passage of the legal-tender act, from the uniform legislation since that time, including the measures adopted by the last Congress, and, finally, by the decision of the Supreme Court of the United States,* that it was intended that the national banking system should be permanent; the institutions organized under it being by the express terms of the law authorized to continue for a period of twenty years; and that the issue of Treasury notes should not be increased in amount, but were to be withdrawn from circulation as rapidly as possible.

The United States notes have performed every service expected of them; and the national-bank issues have the same security, while their parent institutions supply to the public all the conveniences and utilities that any conceivable banking system can possess, and their issues will be redeemed in gold just so soon as the Treasury resumes payment of its debts in specie. Finally, reason and experience alike teach us that we must either continue to adhere to the national banking-system, or yield control of the issue and management of bank-currency to the varying and conflicting legislation of forty or fifty different States and Territories, accompanied, as it surely will be, by all those evils and disasters which are the natural attendants upon the organization and perpetuation of State banking institutions.

Monopoly.

One of the principal objections urged against the national banking system is that it is a monopoly; moreover, that it is a monopoly authorized and continued at the expense of the government. The reverse of this is true; for the national system, so far from being a monopoly, has, in fact, uprooted the real banking monopoly, which has existed in this country from the foundation of the government down to a late day. Should the national system be unfortunately overthrown, that monopoly would be again and at once revived, by the repeal of the provision imposing a tax of ten per cent. upon the issues of State banks, which provision is acknowledged to be one of the compensations of the war.

Prior to the passage of the first national-bank act, State banks were organized in most of the States of the Union in the interest of individuals, under authority of special charters obtained from their several legislatures. The national banking system was intended to be a free system, and from the beginning the organization of banks was open to all; but the amount of circulation originally authorized having subsequently become exhausted, the establishment of banks with circulation was, of necessity, for a time suspended. The act of January 14, 1875, however, removed all restrictions in this respect; and since that date every application which has conformed to the requirements of the law has been granted.

At the time of the organization of the national banking system, it had few friends among the shareholders of the then existing State

* See 12 Wallace, pp. 540 and 567.

banks. These were, as a rule, in the possession of a monopoly granted them by the State legislatures; and the bitter opposition to the national system on the part of the officers and shareholders of State banks may be directly traced to that fact.

Mr. McCulloch, the late Secretary of the Treasury, to whom this Office is indebted for its excellent organization, has stated in a recent letter that he was originally strenuously opposed to the system, because he was then at the head of a large and profitable banking institution, which he "foresaw must go into liquidation or surrender its privilege of issuing two dollars for one dollar of banking capital, if the new banking system went into operation." He was subsequently induced to accept the position of Comptroller of the Currency, and in the letter above mentioned says: "The system grew into favor with me day by day, and I have now no hesitation in saying that, for the United States, it is not only vastly superior to the system which it superseded, but that it is the best system which has been, or is likely to be, devised."

Our national banking system is the only national system not a monopoly in operation in any country. Eleven, only, of the joint-stock banks in Scotland, and but one hundred and sixty-seven of the joint-stock and private banks in England, in addition to the Bank of England, have the privilege of issuing circulation; and these banks are not even required by law to publish balance-sheets for the information of the public. The Bank of France is the fiscal agent of that government, and it alone issues the paper-circulation of that country.

The State banks and savings-banks of many of the leading States of the Union are to-day chartered institutions, and by the terms of their charters are often so entirely without restrictions, that they are not required to publish statements prepared by themselves informing their creditors and the public of their condition.

A monopoly is a privilege; something so valuable that it commands a premium, and which its owner does not willingly surrender without a struggle. But the national banks have, since the passage of the act of June 20, 1874, voluntarily surrendered more than $33,000,000 of their circulation; and forty-three banks, with a total capital of $5,040,000, have since that date gone into liquidation, chiefly for the reason that the privilege of circulation is not a profitable one, and because the restrictions of the system are onerous in comparison with those imposed by State legislatures. If the national-bank act contained no restrictions upon the banks, or imposed no taxes upon their circulation, and if currency were issued to them equal in amount to the value of the bonds deposited, then the interest received by them upon the bonds would, it is granted, be in the nature of a gratuity. This condition of things was true in some of the States previous to the organization of the national banking system; but it has not at any time been true of the national banks.

Profit on circulation.

A very erroneous idea prevails as to the amount of profit derived by the national banks from their circulation; but to show that the profit from this source is not nearly so great as is supposed by many persons, it is only necessary to take into consideration the amount of capital the banks necessarily invest in the United States bonds required to secure their circulation, with the legal restrictions that govern their business, and then to compare the combined income received by them on their bonds and circulation with that which would be received on the same capital loaned on bond and mortgage security, but free from the restrictions governing national banks. On November 1, 1875, there was on deposit with the Treasurer, as security for the circulation of the national

banks, $367,549,412 in the various classes of bonds of the United States, as will be seen by reference to a subsequent page of this report. If from this sum be deducted the amount held as security for the notes of the national gold-banks, and also the amount deposited in excess of that required by law to secure the circulation issued upon them, there will remain $361,498,112 of bonds, worth, in currency, on the day named, $425,840,533.

The table below exhibits the various classes and amounts of these bonds, their currency-value at the date mentioned, the amount of circulation issued thereon, and the amount of interest derived from them, both in gold and in currency value, gold being quoted on that day at 116:

Class of bonds.	Par value.	Currency-value.	Circulation issued.	Gold interest.	Currency value of interest.
Sixes of 1881	$82,781,050	$100,578,976	$74,502,945	$4,966,863	$5,761,561
Five-twenties of 1865	7,056,600	8,256,169	6,350,899	423,306	491,139
Five-twenties of 1865, (new)	6,536,650	7,811,297	5,882,985	392,199	454,951
Five-twenties of 1867	10,282,100	12,467,046	9,253,890	616,926	715,634
Five-twenties of 1868	2,981,000	3,629,367	2,682,900	178,860	207,478
Ten-forties of 1864	97,974,150	113,772,482	88,176,735	4,898,708	5,682,501
Fives of 1881	141,072,050	163,467,238	126,964,845	7,053,602	8,182,178
Pacific Railroad bonds	12,814,512	15,857,958	11,533,061	.....	768,870
Totals	361,498,112	425,840,533	325,348,260	18,530,554	22,264,312

If there be deducted from the amount of capital required to purchase these bonds ($425,840,533), the amount of premium which they bore on November 1, 1875, ($64,342,421,) as well as the ten per cent. margin for which no circulation is issued ($36,149,811), the available means of the banks will be reduced from $425,840,533 to $325,348,260.

The bonds representing this amount of capital consisted, as appears by the table, of $239,046,200 of five per cent., and $109,637,400 of six per cent. gold-bearing bonds, together with $12,814,512 of Pacific Railroad bonds issued by the government, and bearing interest at the rate of six per cent. per annum in currency. The annual interest on these bonds amounts to $18,530,554 in gold and $768,870 in currency, the total currency-value of the interest at the date named, with gold at 116, being $22,264,312. As the banks are required to pay into the Treasury of the United States one per cent. of their circulation (or $3,253,482) as a tax thereon, they have left $19,010,830 in currency as the net amount of interest received by them on their bonds.

On receiving their circulation, they are required by the act of June 30, 1874, to place an amount equal to five per cent. thereof (or $16,267,413) with the Treasurer of the United States as a redemption-fund, leaving, of the $325,348,260 that their bonds secure, $309,080,847, only, available for use; which amount, if loaned at eight per cent. per annum, (estimated as the average rate throughout the country,) will produce an income of $24,726,467; and this, added to the net interest received on the bonds ($19,010,830) gives $43,737,297 as the whole income derived by the national banks from their circulation and from the bonds deposited to secure it. The capital used to purchase the bonds ($425,840,533), if loaned at eight per cent. annual interest, would produce an annual income of $34,067,042, and the difference, which is $9,670,055, or two and one-quarter per cent. on the capital, represents the profit that the banks receive over and above what could be obtained from the loan of the same amount of capital at the rate of interest named. This is concisely shown as follows:

Interest on $309,080,847 of circulation, loaned at 8 per cent...	$24,726,467
Interest on U. S. bonds ($768,870 currency, $18,530,554 gold)	19,299,424
Premium, at 16 per cent., on $18,530,554 gold interest....	2,964,888
Total	46,990,779
Less tax on circulation	3,253,482
Total profit on capital employed.....	43,737,297
The total capital, loaned directly at 8 per cent., would earn..	34,067,242
Difference, which represents profit on circulation..	9,670,055

Two and one-fourth per cent. of the capital employed ($425,840,533) is $9,581,412, which, as shown above, is about the value of circulation to the national banks of the country. In localities where the rate of interest is seven per cent., the value of circulation is somewhat less than two and three-fourths per cent.; and where the rate is ten per cent. the profit is less than one and three-fourths per cent.

The large margin—exceeding $100,000,000—between the value of the bonds owned by the banks and the circulation issued thereon, would, in case of disaster, be available as a reserve for the payment of the depositors or other creditors; and this is an additional argument in favor of issuing circulation under the restrictions of the law, as now provided.

If specie payments should be reached within a few years, the premium paid by the national banks upon their bonds would be nearly if not entirely lost, while investments by private bankers and State banks of an equal amount of capital in loans on bond and mortgage would not suffer from any such depreciation. This loss has not been taken into consideration in the foregoing estimate. Another important consideration is that the average ratio of State taxation upon national banks during the year 1874 was somewhat more than two per cent. upon capital. If the national banks should go into liquidation, and the owners of the bonds should continue to hold the same, the amount of State taxation saved to them would nearly equal the benefit which they now realize from circulation.

Dividends.

It is urged, as a further objection to the national banking system, that the dividends paid to stockholders are greater than the earnings of other corporations. It is true that some national banks which have accumulated a large surplus, or are organized in localities where the proportion of deposits to capital is large or the rate of interest high, as in the Western and Southern States, do declare large dividends; but it is well known that, as a rule, the rates of interest charged on commercial paper by the national banks in their respective localities are less than those charged by State banks, private bankers, and individuals. But the dividends and earnings of the national banks do not, as a rule, exceed by more than two per cent. the current rates of interest authorized by law in the respective States; and this additional amount of profit is surely not too great a compensation for the risks and expenses incident to the business of banking, and to which capital loaned directly on mortgage security is not subject.

On a subsequent page of this report will be found tables showing for a series of years the amount and ratios of dividends to capital, to capital and surplus, and of earnings to capital and surplus, of the national banks in every State and principal city in the Union. But in order to further aid in correcting the prevalent error that exorbitant or extravagant

profits are annually divided by them upon the amount of means invested, a tabular statement is subjoined showing corresponding ratios, for the last six and a half years, in the several geographical sections of the country, and the average ratio for the whole period.

Geographical divisions.	Ratio of dividends to capital, for six months ending—													Average.
	1869.	1870.		1871.		1872.		1873.		1874.		1875.		
	Sept. 1.	Mar. 1.	Sept. 1.	Mar. 1.	Sept. 1.	Mar. 1.	Sept. 1.	Mar. 1.	Sept. 1.	Mar. 1.	Sept. 1.	Mar. 1.	Sept. 1.	
	P'r ct.	P'r ct.	P'r ct.	P'r ct.	P'r ct.	P'r ct.	P'r ct.	P'r ct.	P'r ct.	P'r ct.	P'r ct.	P'r ct.	P'r ct.	P'r ct.
New England States	5.2	5.1	5.0	5.1	4.9	5.0	4.9	5.1	5.1	4.9	4.9	4.9	4.8	5.0
Middle States	5.3	5.1	4.9	5.0	4.9	5.1	4.9	5.1	5.0	4.8	5.0	5.0	4.8	5.0
Southern States	5.8	6.3	5.6	6.1	5.2	5.0	5.3	5.2	4.6	4.3	4.8	4.3	4.4	5.0
Western States and Territories	6.1	5.4	5.0	5.7	5.2	5.3	5.9	5.5	5.5	5.0	5.6	5.4	5.3	5.4
United States	5.4	5.2	5.0	5.2	5.0	5.1	5.1	5.2	5.1	4.8	5.1	5.0	4.9	5.1
	Ratio of dividends to capital and surplus.													
New England States	4.4	4.3	4.2	4.2	4.1	4.1	4.0	4.1	4.1	3.8	3.9	3.8	3.8	4.1
Middle States	4.3	4.1	4.0	4.0	3.9	4.0	3.9	4.0	3.9	3.7	3.8	3.9	3.7	3.9
Southern States	5.3	5.6	5.0	5.5	4.8	4.7	4.9	4.7	4.2	3.9	4.3	3.8	3.9	4.5
Western States and Territories	5.1	4.4	4.0	4.7	4.3	4.4	4.9	4.5	4.5	4.1	4.5	4.4	4.2	4.4
United States	4.5	4.3	4.1	4.2	4.1	4.2	4.2	4.2	4.1	3.8	4.0	4.0	3.9	4.1

Proposed 3.65 treasury notes.

It has been proposed to withdraw the national-bank notes from circulation, and to authorize an additional issue of $400,000,000 of greenbacks, the latter to be interchangeable, in sums of fifty dollars for Treasury-notes bearing interest at the rate of 3.65 per cent. per annum, or one cent per day on each one hundred dollars, and to repeal all acts tending to a resumption of payments in specie. The greenbacks received by the Treasury in exchange for 3.65 notes are to be used for the purchase of six per cent. 5-20 bonds, for the purpose of saving interest to the government. The act of February 24, 1815, as has been seen, authorized the issue of Treasury-notes of the denomination of one hundred dollars, bearing interest "to be computed at the rate of one cent and one-half a cent per day;" and it also authorized the issue of small Treasury-notes, which were exchangeable, in sums of one hundred dollars, for certificates of funded stock, bearing interest at seven per cent. But Secretary Dallas, as before stated, says "it was soon ascertained that the small Treasury-notes fundable at an interest of seven per cent., though of a convenient denomination for common use, would be converted into stock almost as soon as issued."

The experience of 1815 will be repeated with the issue of additional greenbacks, interchangeable for 3.65 notes. The law authorizing the issue of four and one-half and also of four per cent. bonds is still in force. These interest-bearing notes are not, therefore, at present of a standard sufficiently high for funding purposes, and are, in this respect, unlike the notes which were issued in 1815; but the principle of interchangeability will cause the non-interest-bearing notes to be exchanged for them "almost as soon as issued." The non-interest-bearing certificates of deposit, now held by the banks, and amounting to $50,880,000, will at once be converted

into greenbacks, and these, together with $150,000,000 of cash reserve also held by the different banks and bankers of the country, will be speedily exchanged for 3.65 notes. These latter notes will be used by every clearing-house in the country for the payment of balances, and a large proportion of the circulation will then consist of the new inter-convertible interest-bearing notes; so that the whole authorized issue of these notes will soon be in demand.

If the amount of interest-bearing notes be limited to $400,000,000, and a reserve of twenty-five per cent. in legal-tender notes be held in the Treasury, the amount of the latter which may be invested in United States six per cent. bonds will be $300,000,000. This sum will purchase $250,000,000 of six per cent. bonds, assuming that the average premium is no greater than at present—twenty per cent. The amount of interest saved upon the $250,000,000 of 5-20 bonds retired will be $15,000,000, while the interest paid by the government on the $400,000,000 of 3.65 notes outstanding will be $14,600,000, the net saving to the government being $400,000. But through this process the present tax on bank circulation, amounting to $3,250,000, will be lost; so that, instead of saving $400,000, the government will by this experiment be actually the loser of $2,850,000. If, however, the issue of 3.65 notes shall be increased to an amount equal to that of the legal-tender and national-bank notes combined, the loss in interest to the government would be somewhat less than before stated, but equal to at least $2,500,000. It, therefore, seems evident that the substitution of the proposed expedient in place of a system which has been in successful operation for the last thirteen years will result in a loss to the government instead of a gain.

The national banks, as has been seen, are disposed to retire their circulation, and it is probable that during the next year a very large proportion of it will be voluntarily surrendered. But, if the proposition now under consideration should be adopted, many of the banks would go into liquidation, and their loans, to a very great extent, be called in, for the purpose of distributing their present capital and surplus among their stockholders, who would, without doubt, generally organize under State systems and as private bankers. By this course a large proportion of the State taxes, now amounting to an average of about two per cent. upon capital, would be saved to the banks, as a result of the conversion of their capital or deposits into interest-bearing notes, which, like other issues of the government, would be subject to taxation neither by national nor State authorities.

Restrictions.

Mr. Woodbury, in his report as Secretary of the Treasury in 1836, says:

> If all the States would unite in adding a few judicious limitations on the amount of discounts as compared with capital and deposits, and on the safe kind of security to be taken for them, with the requirement of frequent publicity of their condition in detail, and of rigid accountability to periodical examinations by legislative authority, the time is not distant when our currency would become stable; indeed, it deserves consideration whether, under such circumstances, the whole monopolies of banking might not with public advantage be entirely abolished, and the banking privilege, under the above restrictions, securities, limitations, and requirements, (particularly if the personal liability of the stockholders is superadded,) might not safely be thrown open to all.

The twenty-seven years succeeding the report referred to, and preceding the passage of the national-back act, were full of disasters

arising from the failures of banks and bankers, and of consequent losses to their creditors and bill-holders. During that period the bank legislation was directed chiefly toward reforming the currency and securing the bill-holder from loss, and but little attention was given to legislation concerning the necessary "restrictions, securities, limitations, and requirements" which should surround any general system of banking authorized by law. Indeed, under the different State systems, it was and is impossible for "all the States to unite" in judicious restrictions upon banking, as suggested by Mr. Woodbury.

Good bankers really require few or no restrictions; and the system of banking in Scotland is frequently adduced as one which has been successful without restrictions. The eleven joint-stock banks of Scotland, with their numerous branches, have long enjoyed a monopoly of banking in that country. They are managed by men who have established a high character for integrity, skill, and judgment in the conduct of business, and are located in communities which are accustomed to the strict usages and precedents peculiar to a correct system of banking; and these methods of business are more potential than statutory provisions. The Scotch banks do not fear competition, for they enjoy a monopoly of circulation, worth four per cent. per annum; and they know that no loose or bad system of banking would be countenanced or even tolerated by their dealers. The Scotch system is "a law unto itself," and needs few legal restrictions. But in this country, where any association of persons, with or without experience, may organize a bank, it is of great importance that they should be under such judicious limitations as are known to characterize good banking.

The national banks have earned a good character, because, as a rule, they have conformed to such needful rsstrictions as have been fixed by legislation, and as are required for the safety of their creditors or dealers. For this reason many existing associations have preferred to re-organize under the national-bank act, because by so doing they could attain a character and credit which, as private bankers or under State systems, not so securely guarded, they could not so readily acquire. That these restrictions have been generally observed by the national banks may be seen by reference to tables of reserve, and to the summaries of reports of various kinds frequently published by this Office. This may also be inferred from the few failures and the comparatively small losses to creditors which have occurred during the thirteen years' continuance of the system.

Failures of national banks.

The losses to creditors from the failures of banks prior to 1863 cannot be even approximately estimated, the only accessible data having reference solely to losses upon circulation. Mr. MacCulloch says that "the destruction of country banks in England has upon three different occasions, in 1792, in 1814–'15–'16, and in 1825–'26, produced an extent of bankruptcy and misery that has never perhaps been equaled except by the Mississippi scheme in France. In 1826, forty-three commissions of bankruptcy were issued against country bankers, and from 1809 to 1830 no less than 311."

Elliot's Funding System* gives a list of fifty-five banks in the United States, with an aggregate capital of $67,036,265, which failed in 1841. The total bank capital in that year, as stated by Elliott, was $317,642,692, and the failures therefore represented more than one-fifth

* Page 1176.

of the entire bank capital of the country. It is further mentioned that, in nearly every instance the capital invested in such failures was wholly lost. Of these fifty-five banks, twenty-five had been organized under the free-banking system of New York, which was adopted in 1838, and represented a capital of $3,327,965; and eleven were organized under the safety-fund system, with a capital of $3,000,000. The failures in Pennsylvania represented $45,711,000 of capital, including the United States Bank of Pennsylvania, with a capital of $35,000,000. The failures in Ohio represented $2,377,169, in Illinois $3,446,125, and in the city of New Orleans $4,708,652 of capital. Corresponding facts respecting the State banks of this country in subsequent years, and especially in connection with the panic of 1857, will be remembered.

Since the organization of the national banking system in 1863, and down to October 1, 1875, thirty-eight national banks have failed, with a total capital of $9,011,100, and with circulation amounting to $5,874,893.

The experience of this country, previous to the organization of the national banking system, has shown that in twenty years an amount equal to its whole banking circulation was lost in the hands of the people—the loss by bills of broken banks alone being computed to have been at the rate of five per cent. per annum. There has been no loss whatever upon the circulation of the national banks, and no loss to the bill-holder can arise so long as the present laws shall remain in force.

The total amount of claims proved against all of the insolvent national banks is $14,672,106. Dividends amounting to $8,292,877 have been paid upon these claims; and it is estimated that the total loss to their creditors since the organization of the system in 1863 will not exceed $3,985,000. This total loss is less than that realized, in more than one instance, from the failure of a single banking-house during the period first mentioned. There has already been paid upon the total amount of proved claims an average of fifty-six and one-half per cent., and it is estimated that the proportion paid and to be paid upon such claims will be about seventy-three per cent.

Six banks in New York City and one in Brooklyn have failed, with an aggregate capital of $3,000,000; and three of those in New York, with a capital of $1,200,000, have paid their depositors in full, the amount so paid being $1,332,031. The bank in Brooklyn, which failed with $1,191,380 due to depositors, has paid to that class of its creditors 96 per cent. in dividends, amounting to $1,143,725. The whole amount of claims of the depositors of the seven banks mentioned is $4,482,568, upon which $3,878,755 have been paid, being an average dividend of eighty-six and one-half per cent. The total amount of losses of depositors of national banks in New York and Brooklyn is estimated at $246,130, or five and two-fifths per cent. upon the amount of claims proved.

There have been no losses by failures of national banks in any of the other principal cities, except in Chicago, New Orleans, and Washington. One bank only has failed in the New England States, and the total loss to creditors of that institution is but $1,379. The loss to all creditors of national banks in the Middle States is estimated at $701,401, and in the Western States at $841,729. The largest proportion of loss has been in the Southern States, where business has continued unsettled throughout the entire period since the organization of the system; the losses in those States being estimated at $2,439,994 upon $6,638,074 of liabilities.

The whole number of banks which have failed, with their location and

capital, claims proved and dividends paid, together with the estimated loss, is as follows:

States.	No. of banks.	Capital.	Claims proved.	Dividends.	Estimated loss.
Connecticut	1	$60,000	$68,986	$67,606	$1,379
New York	12	3,501,100	5,049,430	4,251,207	432,684
Pennsylvania	3	550,000	1,055,264	669,660	268,717
Illinois	3	800,000	1,001,816	128,922	593,310
Ohio	1	100,000	144,775	50,071	43,432
Indiana	2	100,000	206,998	46,611	84,825
Iowa	1	100,000	205,256	140,258	64,998
Kansas	1	100,000	55,329	24,898	.....
Utah	1	150,000	76,366	11,455	38,183
Nevada	1	250,000	169,812	135,850	16,981
District of Columbia	2	700,000	2,254,458	1,022,487	687,707
Virginia	3	700,000	1,342,252	501,618	754,852
Tennessee	1	100,000	376,932	65,335	311,597
Alabama	1	100,000	288,932	101,126	158,913
Mississippi	1	50,000	33,110	11,588	18,210
Arkansas	1	50,000	15,142	15,142	.....
Louisiana	3	1,600,000	2,327,248	1,048,443	508,715
Totals	38	9,011,100	14,672,106	8,292,877	3,984,503

In each of ten States in the above table there was a failure of one bank only, the aggregate capital of these ten banks being one million dollars. In twenty-two States and Territories, including all the New England States except Connecticut, with New Jersey, Delaware, Maryland, Kentucky, Missouri, Michigan, Wisconsin and Minnesota, there have been no failures.

The number of mercantile failures in the United States since 1869* is estimated at 26,880, with liabilities amounting to $809,460,000. Of this number there were 2,974, with liabilities to the extent of $218,908,350, in New York City alone. The number of failures of national banks which have occurred in the United States during the same period is twenty-two, with liabilities amounting to $8,952,878. Upon this sum, dividends amounting to $5,492,029 have already been paid, and it is thought that a large proportion of the remaining indebtedness will yet be liquidated; the total loss to depositors and other creditors being estimated at $1,810,040, or an average of about twenty and one-fifth per cent. of their claims. In New York City, the number of failures of national banks during the same time was five; liabilities, $3,120,436; estimated amount of loss, $178,839.

The total remaining indebtedness of all the insolvent national banks does not equal the loss which has occurred during the present year from the failure of the single house of the Messrs. Collie, in England; nor does the unpaid indebtedness which has accrued since 1869 exceed the

* Dunn, Barlow & Co. give the mercantile failures for the years 1870 to 1875 for the United States and for New York City as follows:

Year.	United States.		New York City.	
	Number	Liabilities.	Number.	Liabilities.
1870	3,551	$88,242,000	470	$20,573,000
1871	2,915	85,252,000	324	20,740,000
1872	4,067	121,056,000	385	20,684,000
1873	5,183	228,499,000	644	92,635,000
1874	5,830	155,230,000	645	32,580,000
1875, (9 months, only)	5,334	131,172,000	546	31,096,350
Totals	26,880	809,460,000	2,974	218,908,350

losses resulting during the past year from the operations of Dr. Strousburg alone, a Berlin speculator of notoriety, in Russia, Germany and Austria.

Surplus.

The few failures of national banks, and the comparatively small proportion of loss which has resulted to their creditors from this cause, may, in great measure, be attributed to the beneficial restrictions of the act, under which a large amount of surplus has accumulated since the organization of the system, and which surplus is a perpetual and increasing fund to which losses and bad debts may be charged. The following table exhibits the amount and increase of the surplus fund, semi-annually, from 1863 to the present time:

Date.	Number of banks.	Amount of surplus.	Semi-annual increase.
July, 1864	467	$1, 129, 910	.....
Jan., 1865	638	8, 663, 311	$7, 533, 401
July, 1865	1294	31, 303, 566	22, 640, 255
Jan., 1866	1582	43, 000, 371	11, 696, 805
July, 1866	1634	50, 151, 992	7, 151, 621
Jan., 1867	1648	59, 992, 875	9, 840, 883
July, 1867	1636	63, 232, 811	3, 239, 936
Jan., 1868	1642	70, 586, 126	7, 353, 315
July, 1868	1640	75, 840, 119	5, 253, 993
Jan., 1869	1628	81, 169, 937	5, 329, 818
June, 1869	1619	82, 218, 576	1, 048, 639
Jan., 1870	1615	90, 174, 281	7, 955, 705
June, 1870	1612	91, 689, 834	1, 515, 553
Dec., 1870	1648	94, 705, 740	3, 015, 906
June, 1871	1723	98, 322, 204	3, 616, 464
Dec., 1871	1790	101, 573, 154	3, 250, 950
June, 1872	1853	105, 181, 943	3, 606, 789
Dec., 1872	1940	111, 410, 249	6, 228, 306
June, 1873	1968	116, 847, 455	5, 437, 206
Dec., 1873	1976	120, 961, 268	4, 113, 813
June, 1874	1983	126, 239, 308	5, 278, 040
Dec., 1874	2027	130, 485, 641	4, 246, 333
June, 1875	2076	133, 169, 095	2, 683, 454

The great increase in this fund during the years 1865 and 1866 was largely owing to the conversion, in those years, of State institutions into national banks; but prior to the organization of this system there was not, that I am aware, any provision of law requiring banks to carry any portion of their net earnings to a surplus fund.

The act provides not only that a national bank shall, before the declaration of a dividend, carry one-tenth part of its net profits of the preceding half year to its surplus fund, until the same shall amount to twenty per centum of its capital, but that losses and bad debts shall be deducted from its net profits before any dividend shall be declared. It further provides that all debts due to an association on which interest is due and unpaid for a period of six months, unless the same are well secured and in process of collection, shall be considered bad debts within the meaning of the law. And this provision is construed to include stocks and bonds upon which interest is past due, as well as promissory notes.

The London and Westminster Bank, in view of the exceptional losses and frauds during the past year, has transferred the sum of five hundred thousand pounds sterling from the "rest" (surplus) to a special suspense account, which sum is considered more than sufficient to meet all contingencies. The London Economist, in commenting upon this course, says: "Nothing can be better than that the greatest joint-stock bank in

the country, the Bank of England alone excepted, which belongs to a different order of things, should take this decided and wise course. There are two policies in such a case possible, and only two. One is, at once to estimate the whole loss, to largely reduce the present dividend, and to write the necessary sum off the reserve fund; the other, to estimate the possible loss low, to write off but little, and, above all things, to declare as high a dividend as possible. In all companies, the rules of morality prescribe the former. It is wrong not to provide for plain losses, and wrong to pay unreal dividends. But in the case of a bank, it is not only wrong, but dangerous. Perfect explicitness in such cases is the only means of safety. The credit of a bank is its life, and that credit can only be maintained by deserving the confidence of the public, by telling the whole truth, though it is not favorable, and by acting consistently upon real facts, though they are not pleasant.

"If the largest of our joint-stock banks—the bank of which it used to be said that it never was known to lose largely, or to be concerned in any but good business—writes so large a sum off its reserve fund, and lessens its dividend by one-half, no other bank need fear to tell the whole truth and nothing but the truth. Credit will never be good as long as people believe that anything is kept back. No doubt it needs manliness and fortitude to tell the truth, when the truth is not pleasant; but it is only by manliness and fortitude that confidence can be obtained in common life, or that credit can be preserved in the difficult and trying transactions of business."

A bank which is conducted upon correct principles will always refuse to declare a dividend until it is absolutely certain that the necessary amount of earnings is in hand. Legislation is not needed to prevent the payment by such a bank of fictitious dividends; but badly-managed corporations often declare unreal dividends, the officers persuading themselves that debts which are doubtful, and which should be at least placed in a suspense account, will be eventually collected. Dividends in such cases are made, not from the earnings of the bank, but from its capital, or from other funds which do not belong to it. If bad debts can be charged to a surplus fund already accumulated, the dividend may not necessarily be passed, while the failure to make a dividend or a diminution of the surplus discloses in either case to shareholders the true condition of the bank, and tends to prevent the further payment of unreal dividends; the latter being too often the first acts of fraud on the part of unscrupulous officers and directors.

The rigid enforcement of this restriction by this Office has frequently resulted in an entire change in the officers and management of national banks, thus averting otherwise inevitable losses and failures.

Publicity.

The statistics hitherto compiled from the reports of the national banks have been found of great value, and are in constant request by those who are interested in or are seeking information upon, questions of finance. Under no previous system has it been possible to procure complete returns from which to present to the public, periodically, full information of the condition of the banks of this country. As has been already said, not even the joint-stock banks of England are required to make reports to any constituted authority, and but a very few of the banks of the Kingdom of Great Britain ever pretend to publish statements of their condition.

Prior to the year 1834 no systematic effort had been made to obtain full

statistics concerning the banks in the various States; but, Congress having by resolution directed the Secretary of the Treasury to procure and publish such statistics, an effort was made to do so; the result of which may be inferred from a report to Congress, made in 1855 by the then Secretary of the Treasury, wherein it is said that the returns of the banks were so imperfect as to indicate extraordinary incapacity on the part of those making them, and that great difficulty was experienced in arranging in any intelligible or satisfactory manner those that were made. In many States no reports whatever were required from banks chartered under their laws; in others infrequent ones only were required; and in the few in which the banks made quarterly reports there was an entire absence of uniformity as to the dates upon which their condition was required to be shown. It followed that no reliable information of the amount, at any given date, of the paper-circulation of the country, of the specie held by the banks, or, indeed, of their resources or liabilities generally, was obtainable, and the statistics furnished by the Secretary were therefore, through necessity, in a great degree based upon estimates, which were made from reports that in themselves were unsatisfactory and unreliable.

In 1873 it was by law made the duty of the Comptroller of the Currency to present annually to Congress, from the best sources attainable, a statement of the condition of the banks, banking companies, and savings-banks organized under State and Territorial laws; but by reference to his report it will be seen how difficult, for the reasons stated, has been the task of obtaining the desired information, and how incomplete and meager the result of his labors in this direction. Efforts have been made to induce the State legislatures to remedy the difficulty by appropriate legislation, but thus far without success; and it is not probable that, under the ever-changing statutes of forty-three different States and Territories, any reliable statistics as to the affairs of banking corporations chartered by them can ever be obtained.

Thorough publicity as to the condition of banking institutions, whether organized by authority of Congress or by that of the State legislatures, is desirable, both for statistical purposes and as a check upon illegitimate operations. An eminent financier and political economist, in an essay published in 1831, says: "Another great guarantee against improper management is the obligation to make public annual statements of the situation of the banks. The mystery with which it was formerly thought necessary to conceal the operations of those institutions has been one of the most prolific causes of erroneous opinions upon that subject and of mismanagement on their part. * * * Publicity is in most cases one of the best checks that can be devised; it inspires confidence and strengthens credit; while concealment begets distrust, and often engenders unjust suspicions."

The originators of the national banking system, recognizing the importance of publicity, wisely provided for securing it to the fullest possible extent, by requiring the national banks to furnish to the Comptroller of the Currency reports of their condition—at first quarterly, and at a later period five times in each year—and to publish such reports in the local newspapers in the places where the banks are severally established. From these reports full statements are made up and published annually in the report of the Comptroller to Congress, showing the amount and kinds of the loans made by the banks; the amount of specie, legal-tender money, and other cash means held by them; the character and amount of their other resources, and of their liabilities to the public; the state of their reserves; their earnings, dividends and surplus; to-

gether with all such other information tending to throw light upon their condition and management as can be given in general statements.

The national banks are also examined each year by competent persons, whose reports are made in the same general form as are those made by the bank-officers; thereby affording a means of instituting comparisons by which to ascertain the correctness of the returns made by the banks. The reports of the examiners also give, in addition, detailed information, which can be obtained in no other way, relative to the condition and management of the banks; thus enabling the Comptroller frequently to detect, and to inform directors and stockholders of, the existence of irregularities and mismanagement on the part of bank-officers which are dangerous to the stability of the banks. Disasters are by these means in many cases averted, and valuable experience gained by the banks.

Statistics so complete and accurate as those deduced from the reports of the national banks have never been made in any country under any previous system. They are of great value, whether viewed as a means of imparting to the public necessary information in regard to the banks, or of supplying to the statist and political economist or to Congress important and reliable data upon which to base such further legislation as may be found necessary for improving the administration of the banking system of the country. Experience has shown that such statistics cannot be obtained except under a general law of Congress, requiring frequent and detailed reports from the banks to be made to one officer, and by him compiled for the use of the public.

Consolidation of the national debt.

The Comptroller has endeavored to answer as concisely as possible the chief objections urged against the national banking system, and to present some reasons why the system should be continued. The monetary problems to be solved during the next few years are the consolidation of the national debt into bonds bearing a low rate of interest and the resumption of specie payment.

The conversion of the present national debt into a bond bearing four and one-half per cent. interest would save to the government nearly nineteen millions of dollars annually, while the reduction of interest resulting from the funding of the debt into a four per cent. bond would amount to twenty-seven and one-half millions annually; and there appears no good reason why, during the next ten years, the public debt should not be consolidated into a bond bearing interest at no greater rate than four per cent. In order to accomplish this most desirable end, it will be necessary to enlist in its support all the leading monetary institutions of the country. This assistance, as we have seen, was needed during the war of 1812, and has been needed from the time of the organization of the Bank of North America until the present. A system of economy in expenditure, together with an increased amount of revenue, will soon give to the country a credit not excelled by that of other countries, which readily obtain loans at less than four per cent. per annum.

But there are those who, seeing evils which are largely imaginary, desire the entire overthrow of the national banking system, for the purpose of substituting therefor another system which has been often tried without success, and which will inevitably lead to a loss of credit and partial or complete repudiation, not unlike that which has recently overtaken the Turkish government. The national banking system should not be repealed, but should be so moulded as to become and

continue both profitable to the people and advantageous to the government.

The interests of the national banks will be promoted by the reduction to a low rate of the interest upon the public debt; for such a reduction will carry with it a reduction of the present onerous taxation upon bank capital, circulation and deposits. The banks and bankers of England have at all times a fund at their command in which their surplus and reserves can be invested without danger of loss, namely, the English consols, bearing interest at three per cent. The national banks derive but a small profit (about two and one-half per cent.) from their circulation; but if the public debt were consolidated into a security resembling the English consols,* always salable in the market at a nearly uniform rate, it would furnish a fund in which the reserves of the banks could at all times be placed, and thus enhance not only the profits but the security and safety of every monetary institution in the country. The funding of the national debt at a low rate of interest will also aid materially in bringing about the resumption of specie payments; for the return to specie payments depends to a great extent upon the credit of the government.

It is very generally acknowledged that the national banking system is superior to the systems which preceded it in this country, and equal, if not superior, to any other system of banking yet devised; and the principal reason adduced for desiring its overthrow is that money can be saved to the government by authorizing it to furnish the circulation of the country. Such a course will not result in true economy; for it will immediately and indubitably injure our credit abroad, and have the effect of preventing the sale in foreign markets of United States bonds bearing a low rate of interest.

The experience of the last thirteen years has shown that the present is a safe and good system; but even were it much less perfect than it is, the common prudence of ordinary business men would dictate the postponement of the discussion of the repeal and liquidation of a banking system whose resources amount to nineteen hundred millions of dollars, among which are included one thousand millions of loans, to the people, with more than four hundred millions to the government, until the debt of the country shall be funded at a satisfactory rate of interest, and permanent arrangements be effected for the redemption of its demand obligations. When the purchasing power of the legal-tender notes shall be made equal to gold, it will then be in order to discuss the policy of the establishment of a different banking system, and the issue of additional paper money by the government.

NATIONAL-BANK CIRCULATION.

Section 5177 of the Revised Statutes limited the issue of national-bank notes to $354,000,000; of which amount $150,000,000 was required by the act of March 3, 1865, to be apportioned among the associations organized in the States and Territories and in the District of Columbia, according to representative population, and $150,000,000 to associations organized in the several States and Territories and in the District of Columbia, having due regard to the existing banking capital, resources, and business of such State, District, and Territory. The remaining $54,000,000 was, by the act of July 12, 1870, authorized to be

* Since the year 1850 the English consols (three per cents) have ranged in price from 99¼ (in 1851) to 87¼ (in 1866.) The average price has, however, during that period, been above 92; a rate which indicates the borrowing power of the government to be about three and one-fourth per cent. per annum.

issued to associations in States and Territories having less than their proportion of circulation under the apportionment above described. The same act authorized the withdrawal of $25,000,000 from banks organized in those States which had received more than their proportion, and its redistribution to banks located in States which had received less than their proportion of circulation.

The redistribution of circulation, as contemplated by this act, was found to be impracticable, for reasons given in previous reports of the Comptroller; and a subsequent act, approved June 20, 1874, provided for a system of redemption of national-bank notes at the Treasury Department, and a redistribution of $55,000,000 of circulation, under an apportionment made on the basis of population and wealth as shown by the returns of the census of 1870. The same act authorized the deposit by any national bank of lawful money with the Treasurer, in sums of not less than $9,000, for the purpose of retiring circulating-notes, and the withdrawal by them of bonds held as security for such notes. Under this provision a greater amount of circulation has been voluntarily surrendered than was needed to supply applications therefor; and hence the withdrawal of circulation from one portion of the country for the purpose of re-issue in another has proved to be unnecessary. The greatest amount of circulation outstanding at any time prior to January 14 last was on December 1, 1874, when it reached $352,394,346; and this amount is $1,605,654 less than that then authorized by law.

During the period intervening between the passage of the act of June 20, 1874, and that of January 14, 1875, sixty banks were organized, with an aggregate capital of $5,369,000, and to which circulation was issued amounting to $3,753,580. Additional circulation, to the amount of $980,920, was also issued to national banks previously organized, making a total issue of $4,734,500 during that time. Within the same period circulation to the amount of $2,767,232 was redeemed and destroyed, without re-issue; the actual increase being, therefore, but $1,967,268.

The following table exhibits, by States, the number of national banks organized, with their capital and circulation, together with the circulation issued to banks previously organized, and the circulation voluntarily returned and destroyed, from June 20, 1874, to January 14, 1875.

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States and Territories.	No. of banks.	Capital.	Circulation issued.			Circulation retired.		
			To new banks.	To old banks.	Total.	Under act of June 20, 1874.	Liquidating banks.	Total.
Maine	1	$50,000	$45,000	.....	$45,000	.....	$1,000	$1,000
Massachusetts	1	100,000	30,000	.....	30,000	.....	.....	.....
Rhode Island	.....	.....	.....	.....	.....	$82,000	.....	82,000
Connecticut	.....	.....	.....	.....	.....	27,000	.....	27,000
New York	.....	.....	.....	.....	.....	729,750	165,463	895,213
Pennsylvania	1	200,000	45,000	.....	45,000	26,100	21,040	47,140
Maryland	.....	.....	.....	.....	.....	.....	1,165	1,165
District of Columbia	.....	.....	.....	$138,000	138,000	.....	65,700	65,700
Virginia	.....	.....	.....	74,300	74,300	.....	73,055	73,055
West Virginia	.....	.....	.....	18,000	18,000	.....	9,595	9,595
North Carolina	.....	.....	.....	58,500	58,500	.....	.....	.....
South Carolina	.....	.....	.....	.....	.....	62,200	.....	62,200
Georgia	.....	.....	.....	.....	.....	12,400	1,380	13,780
Florida	2	100,600	45,000	.....	45,000	.....	.....	.....
Alabama	.....	.....	.....	45,000	45,000	.....	.....	.....
Louisiana	.....	.....	.....	.....	.....	41,900	120,500	162,400
Texas	2	200,000	61,500	.....	61,500	.....	.....	.....
Arkansas	.....	.....	.....	.....	.....	.....	500	500
Kentucky	10	1,694,000	1,319,400	121,700	1,441,100	.....	5,700	5,700
Tennessee	4	250,000	189,000	.....	189,000	4,999	51,500	56,499
Missouri	.....	.....	.....	.....	.....	448,860	30,194	479,054
Ohio	4	300,000	211,500	113,710	325,210	41,000	72,245	113,245
Indiana	12	1,075,000	895,500	48,570	944,070	115,500	17,170	132,670
Illinois	8	450,000	364,480	104,320	468,800	232,310	87,313	319,623
Michigan	4	200,000	120,600	83,320	203,920	63,700	5,500	69,200
Wisconsin	1	50,000	27,000	22,500	49,500	24,800	13,152	37,952
Iowa	6	350,000	261,000	63,000	324,000	8,100	26,940	35,040
Minnesota	1	50,000	36,000	90,000	126,000	9,000	3,430	12,430
Kansas	1	100,000	30,600	.....	30,600	2,100	7,600	9,700
Nevada	.....	.....	.....	.....	.....	.....	3,165	3,165
Colorado	2	200,000	72,000	.....	72,000	.....	.....	.....
Utah	.....	.....	.....	.....	.....	43,600	4,606	48,206
Montana	.....	.....	.....	.....	.....	.....	4,000	4,000
Totals	60	5,369,000	3,753,580	980,920	4,734,500	1,975,319	791,913	2,767,232

The act of January 14, 1875, approved since the date of my last report, repealed all laws which limited the aggregate amount of national-bank circulation, and also the laws (above referred to) which provided for its withdrawal and redistribution. It further authorized the unlimited issue of circulation to banks organized, or to be organized, under existing laws, but made it the duty of the Secretary of the Treasury to retire legal-tender notes to the extent of eighty per cent. of the additional national-bank notes issued, until their amount should be reduced to $300,000,000.

Section 3 of this act is as follows:

That section five thousand one hundred and seventy-seven of the Revised Statutes, limiting the aggregate amount of circulating-notes of national banking-associations be, and is hereby, repealed; and each existing banking-association may increase its circulating-notes in accordance with existing law without respect to said aggregate limit; and new banking-associations may be organized in accordance with existing law, without respect to said aggregate limit; and the provisions of law for the withdrawal and redistribution of national-bank currency among the several States and Territories are hereby repealed. And whenever, and so often, as circulating-notes shall be issued to any such banking-association, so increasing its capital or circulating-notes, or so newly organized as aforesaid, it shall be the duty of the Secretary of the Treasury to redeem the legal-tender United States notes in excess only of three hundred million of dollars, to the amount of eighty per centum of the sum of national-bank notes so issued to any such banking-association as aforesaid, and to continue such redemption as such circulating-notes are issued until there shall be outstanding the sum of three hundred million dollars of such legal-tender United States notes, and no more. And on and after the first day of January, anno Domini eighteen hundred and seventy-nine, the Secretary of the Treasury shall redeem, in coin, the United States legal-tender notes then outstanding on their presentation for redemption, at the office of the assistant treasurer of the United States in the city of New York, in sums of not less than fifty dollars. And to enable the Secretary of the

Treasury to prepare and provide for the redemption in this act authorized or required, he is authorized to use any surplus revenues, from time to time, in the Treasury not otherwise appropriated, and to issue, sell, or dispose of, at not less than par, in coin, either of the descriptions of bonds of the United States described in the act of Congress approved July fourteenth, eighteen hundred and seventy, entitled "An act to authorize the refunding of the national debt," with like qualities, privileges, and exemptions, to the extent necessary to carry this act into full effect, and to use the proceeds thereof for the purposes aforesaid. And all provisions of law inconsistent with the provisions of this act are hereby repealed.

Between the date of this act and November 1, following, eighty-nine banks were organized, with an aggregate capital of $10,654,100 and $3,750,680 of circulation. Additional circulation, amounting to $7,235,995, was also issued to national banks organized previous to the date of the act last mentioned, making a total issue, since January 14, of $10,986,675. Legal-tender notes amounting to $8,763,756, have, under the provisions of the law, been withdrawn from circulation and destroyed, leaving the amount of such notes outstanding on November 1, 1875, $373,236,244. During the same period $14,570,305 of national-bank notes were redeemed by the Treasurer, and $2,690,918 surrendered to this Office, none of which has been re-issued. The actual decrease, therefore, in national-bank circulation has, since January 14, 1875, been $6,774,548.

The total circulation issued to national banks under the acts of June 20, 1874, and January 14, 1875, was, on November 1 of this year, $15,721,175, during which time $20,028,455 of their notes were redeemed or surrendered and destroyed; the decrease in total circulation during this period being $4,307,280. The whole amount of legal-tender notes deposited with the Treasurer under the act of June 20, 1874, by banks now in operation, for the purpose of retiring circulation, was $27,552,329, which amount was deposited by two hundred and forty-one banks. There was also deposited by banks in liquidation, $6,210,175, to which must be added a balance of $3,813,675 remaining from deposits made by liquidating banks prior to that date; making a total of $37,576,179 thus deposited. Deducting from this sum the amount of circulating notes which, during that period, was redeemed and destroyed and for which no re-issue was made, there remained on November 1, of legal-tender notes on deposit with the Treasurer for the purpose mentioned, $20,238,642, which amount will doubtless be increased from month to month; so that the extent of withdrawals of national-bank notes during the current year will probably exceed that of their issue.

The following table exhibits, by States, the issue and retirement of circulation from June 20, 1874, to November 1, 1875:

States and Territories.	Circulation issued.	Circulation retired.		
		Under act of June 20, 1874.	Of liquidating banks.	Total.
Maine	$470,140	.....	$20,469	$20,469
New Hampshire	201,860	.....	11,815	11,815
Vermont	434,870	.....	11,329	11,329
Massachusetts	3,791,485	$409,107	45,130	454,237
Rhode Island	108,100	153,900	.....	153,900
Connecticut	525,850	158,212	12,485	170,697
New York	1,166,080	4,610,294	778,641	5,388,935
New Jersey	360,050	143,088	8,962	152,050
Pennsylvania	2,153,930	165,396	194,823	360,219
Delaware	1,000	.....	.....	.....
Maryland	73,310	23,735	69,093	92,828
District of Columbia	144,200	.....	323,406	323,406
Virginia	191,850	95,135	408,120	503,255

States and Territories.	Circulation issued.	Circulation retired.		
		Under act of June 20, 1874.	Of liquidating banks.	Total.
West Virginia	$20,080	$54,605	$273,823	$328,518
North Carolina	148,500	75,795	.....	75,795
South Carolina	.....	318,585	.....	318,585
Georgia	.....	86,906	50,965	137,871
Florida	45,000	.....	.....	.....
Alabama	63,000	.....	670	670
Mississippi	32,130	.....	2,750	2,750
Louisiana	.....	190,392	411,990	602,382
Texas	61,500	39,023	.....	39,023
Arkansas	.....	14,789	2,705	17,494
Kentucky	1,810,500	174,289	13,812	188,101
Tennessee	234,000	141,168	204,879	346,047
Missouri	42,600	1,565,346	135,883	1,701,229
Ohio	589,730	133,282	274,363	407,645
Indiana	1,275,670	839,072	149,835	988,907
Illinois	628,000	1,709,255	652,072	2,361,327
Michigan	277,420	341,996	28,475	370,471
Wisconsin	50,400	250,817	135,210	386,027
Iowa	472,500	381,711	166,147	547,858
Minnesota	226,820	365,092	6,908	372,000
Kansas	30,600	84,043	132,545	216,588
Nebraska	.....	40,480	.....	40,480
Nevada	.....	.....	4,840	4,840
Colorado	72,000	1,800	6,475	8,275
Utah	.....	139,512	58,333	197,845
Montana	.....	22,899	10,770	33,669
Surrendered to this Office and retired	.....	.....	.....	2,690,918
Totals	15,721,175	12,729,814	4,607,723	20,028,455

The following table exhibits the total issue and retirement of national-bank circulation, and the deposit and retirement of legal-tender notes, monthly, from June 20, 1874, to November 1, 1875, the amounts issued and retired under each of the acts named being stated separately:

Months.	National bank circulation.		Legal-tender notes.	
	Issued.	Retired.	Issued.	Retired.
June, 1874, (last 10 days)	$72,820	$120,800	$1,105,337	.....
July, "	715,260	100,000	3,169,043	.....
Aug., "	564,450	.....	3,190,425	.....
Sept., "	1,232,570	509,269	1,153,400	.....
Oct., "	780,650	796,550	988,143	.....
Nov., "	781,500	130,500	258,167	.....
Dec., "	397,050	950,413	728,587	.....
Jany., 1875 (first 14 days)	190,200	159,700	449,795	.....
Totals from June 20, 1874, to Jany. 14, 1875	4,734,500	2,767,232	11,042,897	.....
Jany., 1875 (last 17 days)	537,580	255,600	1,323,214	.....
Feb., "	1,062,440	1,139,204	3,283,100	.....
Mar., "	1,956,580	583,200	2,875,448	$2,773,100
April, "	1,390,200	1,614,400	2,261,463	1,175,140
May, "	1,237,500	1,532,530	1,637,309	987,760
June, "	1,735,525	1,734,900	3,099,626	1,292,420
July, "	1,151,140	2,156,500	1,896,910	1,016,472
Aug., "	626,960	1,847,596	943,246	509,400
Sept., "	520,650	1,803,020	2,167,406	304,584
Oct., "	768,100	1,903,355	3,241,885	704,880
Totals from Jan. 14 to Nov. 1, 1875	10,986,675	14,570,305	22,719,607	8,763,756
National-bank notes surrendered to this Office and retired	.....	2,690,918	.....	.....
Balance of legal-tenders deposited by liquidating banks previous to June 20, 1874	.....	.....	3,815,675	.....
Grand totals	15,721,175	20,028,455	37,576,179	8,763,756

The following summary exhibits, concisely, the operation of the acts of June 20, 1874, and of January 14, 1875, down to November 1, of the present year:

National-bank circulation outstanding June 20, 1874		$349,894,182
Issued from June 20, 1874, to January 14, 1875	$4,734,500	
Redeemed and retired between same dates	2,767,232	
Increase from June 20, 1874, to January 14, 1875		1,967,268
Amount outstanding January 14, 1875		351,861,450
Redeemed and retired from Jan. 14 to Nov. 1, 1875	14,570,305	
Surrendered between same dates	2,690,918	
Total redeemed and surrendered	17,261,223	
Issued between same dates	10,986,675	
Decrease from January 14 to November 1, 1875		6,274,548
Amount outstanding November 1, 1875		345,586,902
Balance of legal-tender notes on deposit in the Treasury June 20, 1874, to redeem circulating-notes of insolvent and liquidating banks		$3,813,675
Deposited from June 20, 1874, to November 1, 1875, to redeem national-bank circulation		33,762,504
Total		37,576,179
Circulation redeemed by Treasurer between same dates, without re-issue		17,337,537
Legal-tender notes remaining on deposit November 1, 1875		20,238,642
Legal-tender notes retired under act of January 14, 1875		$8,763,756
Decrease of national bank-notes from June 20, 1874, to Nov. 1, 1875		4,307,280

National gold-banks.

The national gold-banks of the United States are nine in number, and are all located in the State of California. Their total capital, which on November 1, 1874, was $3,650,000, has been increased during the present year to $4,700,000. Their aggregate circulation has also, during the same period, been increased from $2,150,000 to $2,630,000.

The National Gold Bank and Trust Company of San Francisco has deposited in the Treasury of the United States $740,000 in gold for the purpose of retiring its circulating-notes, $340,000 of which was deposited during the present month. Two other gold-banks, one at Stockton and the other at Petaluma, have deposited $160.000 and $40,000, respectively, for the same purpose, the total amount of specie so deposited being $940,000; and their notes to that amount are now redeemable in gold both at the office of the assistant treasurer in San Francisco and at the Treasury in Washington.

Prior to the late financial crisis in California the gold-notes had an extensive circulation in the mining-regions of the Pacific coast, the expense of transportation being considerably less than upon gold coin; but owing to the deranged condition of business and the suspension of labor in many of the mining-districts, the demand for these notes has largely diminished. The already-existing prejudice of the people of the Pacific coast against the use, as money, of any description of paper-currency, is said to have been increased by the recent

refusal of the other banks and bankers of San Francisco to either receive or pay out the gold-notes; and as the total capital of the two national gold-banks in San Francisco was but $3,000,000, while that of the State and foreign banks and private bankers in that city is estimated to be not less than $25,000,000, the effect of such refusal can be readily appreciated. The recent prompt and simultaneous redemption of these notes in gold, in San Francisco and Washington, together with a restoration of the industries of the State to their former prosperity, will without doubt restore their credit.

By the act of June 20, 1874, the requirement of a reserve upon circulation was repealed; but this provision did not apply to the gold-banks. The circulation of such banks is by law limited to eighty per cent. of the par value of the United States bonds deposited by them; and as the estimated profit on circulation in California is only from one to two per cent., (the legal rate of interest being ten per cent. per annum,) there can be little inducement for the organization of national gold-banks in that State. It has been suggested that an increase to ninety per cent., in the ratio of the notes issued to the bonds deposited, shall be authorized. This increase will, it is thought, be necessary, if additional gold-banks are to be hereafter organized, and it is therefore recommended.

REDEMPTION.

It may be said that a bank is in good condition just in proportion as its business is conducted upon short credits, with its assets so held as to be available on brief notice. If banks loan upon real estate, upon long time, or upon inconvertible collaterals, the necessity of redemption will certainly compel them to call in such loans so far as possible, and to re-loan their available means upon short credits which are easily convertible. If banks are obliged to redeem their notes in specie, they must so regulate their business that their resources can be readily converted into specie.

An anomalous characteristic of the present system of redemption is that the legal-tender note, in which the national-bank note is redeemable, is of no more value in the market than the issues of the banks themselves; but the exchanging of one kind of paper for another has, no doubt, had the effect of reminding the weaker class of banks that the notes which they issue are not really money, but are simply promises to pay, and which are really to be paid in money to the holder on demand. In proportion as the value of the legal-tender note is increased, the demand for such notes in exchange for the issues of national banks will be increased. If, under the act of January 14, 1875, a sufficient amount of legal-tender notes shall be withdrawn to reduce the aggregate amount to three hundred millions of dollars, as contemplated by the act, a system of redemption approximating to that of redemption in specie will take place, and the banks will be obliged to retire their issues, or submit to frequent redemptions. The real benefits of such a system will then become apparent. It will give elasticity to the currency, and prevent the issue of bank-notes beyond the requirements of business.

The following table exhibits the amount of national-bank notes received monthly by the Comptroller of the Currency, from June 20, 1874, to November 1, 1875, and the amount received for the same period at the redemption agency of the Treasury:

Month.	Received by Comptroller.					Received at redemption agency.
	From banks for re-issue or surrender.	From redemption agency for re-issue.	Of closed banks.	Under act of June 20, 1874.	Total.	
June, 1874, (last 10 days)	$1,017,358	.....	.....	.....	$1,017,358	.....
July, "	2,703,361	.....	$100,000	.....	2,803,361	$10,538,171
Aug., "	592,215	$1,117,600	.....	$60,409	1,770,224	9,993,366
Sept., "	526,641	8,827,750	155,700	360,010	9,870,101	7,823,976
Oct., "	328,834	9,827,870	295,800	444,200	10,896,704	5,608,481
Nov., "	107,491	10,687,090	.....	489,400	11,343,981	10,686,907
Dec., "	98,578	10,865,995	124,446	479,400	11,568,419	11,301,804
Jan., 1875, (first 14 days)	327,185	6,134,100	.....	225,700	6,686,985	6,338,805
Totals	5,761,663	47,460,405	675,946	2,059,119	55,957,133	62,291,511
Jan., 1875, (last 17 days)	254,655	6,872,600	.....	254,100	7,381,355	9,552,093
Feb., "	38,025	12,265,690	516,071	545,600	13,365,386	13,169,743
Mar., "	79,861	11,775,850	.....	938,200	12,793,911	15,250,942
April, "	54,880	11,634,500	223,100	918,700	12,831,180	17,295,133
May, "	33,837	10,865,600	591,830	1,309,800	12,821,067	19,630,452
June, "	293,280	14,214,800	349,800	1,796,100	16,653,980	18,231,007
July, "	134,540	7,128,500	583,400	908,600	8,755,040	19,257,094
Aug., "	254,680	7,670,300	250,500	1,685,996	9,861,476	15,774,037
Sept., "	45,345	6,628,955	655,900	1,384,720	8,714,920	13,348,395
Oct., "	406,000	5,424,900	640,376	1,328,529	7,799,805	15,536,038
Totals	1,595,103	94,501,695	3,810,977	11,070,345	110,972,120	157,044,934
Grand totals	7,356,766	141,962,100	4,486,923	13,129,464	166,935,253	219,336,445

From the above table it will be seen that there was received at the redemption-agency of the Treasury, from June 20, 1874, to November 1, 1875, $219,336,445. Of this amount, $92,000,000, or about forty-two per cent., was received from the banks in New York City. The total amount received by the Comptroller for destruction, from the redemption-agency and from the national banks direct, was $166,935,253; of which amount $15,094,354 were issues of the banks of the city of New York; $12,549,877, of those of the city of Boston; $5,650,667, of Philadelphia; $3,366,735, of Baltimore; $3,141,600, of Pittsburgh; $2,796,945, of Chicago; $1,841,749, of Saint Louis; $1,288,570, of Cincinnati; $1,386,692, of New Orleans; $1,110,780, of Albany; and of those of the other redemption-cities, $3,307,795.

The amount of national-bank notes now outstanding upon which the charter-number has been printed, is $156,256,347, leaving $101,960,555 of notes in circulation without such numbers. If the present system shall be continued until these notes are replaced by new notes bearing their charter-numbers, economy will result to the banks, for the expense of assorting will always thereafter be greatly reduced; and when this shall have been done the machinery now in operation will be ready and adequate for the redemption of national-bank notes in specie.

The objection to the present system, on the part of the banks, is the expense, and there is no doubt that their complaints are entitled to consideration; for, under any true system of redemption, the correct principle is that the holder shall, at his own expense, present the note at the place of redemption, while, under the act of June 20, the expense of such presentation is borne by the association which issued the note. But there are good reasons for the continuance of the system as it is. If the transmitting bank is to bear the expense of presentation, in many instances the filthy and mutilated notes which should be retired will be paid out in order to avoid that expense, and at the same time banks in the chief commercial cities will be subject to charges which should be

borne by those who have the benefit of the circulation. The expense to which the issuing banks are subject is in some degree counterbalanced by the privilege which they have of sending unassorted bank-notes to the Treasury for redemption, and by the repeal of the provision requiring reserve upon circulation. Letters upon this subject have been received by the Comptroller from the officers of many leading banks, and it is their almost universal opinion that the redemption of bank-notes should, at least for the present, be performed by the government and not by private corporations.

Section 5173 of the Revised Statutes provides that the expenses of this Office shall be paid out of the proceeds of the taxes or duties assessed and collected on the circulation of the national banks. This tax, from the organization of the system to July 1, 1875, amounts to $30,836,937, while the expenses of the Bureau and of the printing and preparation of the notes have been but $3,689,617.64. The tax on deposits was imposed as a war-tax; and as other similar war-taxes have been repealed, the national banks claim that this tax also should be repealed. The amount of taxation to which the national banks are subject (the average rate, including State and national, being about four per cent. per annum) is much greater than that imposed upon any other capital in the country; and it seems but just that the tax on deposits should be remitted. Under existing law, the assorting, redemption, and destruction of the notes of banks in liquidation, or which are retiring their circulation, is required to be done at the expense of the government. This expense has, during the past year, been borne chiefly by the banks; and the amount of this class of currency to be redeemed during the next year is estimated to be about one-eighth of the whole issue, for which purpose there will probably be on deposit with the government not less than an average of $20,000,000, in addition to the redemption fund of about $16,000,000.

If the tax on deposits be not repealed, the Comptroller recommends that Congress authorize an appropriation of an amount sufficient to defray the expenses of redemption, to be paid from the taxes collected from the national banks, now amounting, annually, to more than seven millions of dollars. The banks will then still contribute the greater portion of the expense, through the permanent deposit by them of legal-tenders in the Treasury as a redemption fund; while the trifling cost of redemption will be more than counterbalanced by the constant purification of the currency and the permanent reduction of exchange throughout the country to a minimum rate.

Under the present system of redemption the Treasurer transmits by express legal-tender notes in payment of unassorted national-bank notes received by him. Many of the banks prefer that such returns should be placed to their credit with their correspondents in the commercial cities; and if such transfers can be made at the option of the transmitting bank, a large amount of expense will be saved to them, and one of the principal objections to the present system obviated.

The following table exhibits the number and amount of national-bank notes, of each denomination, which have been issued and redeemed since the organization of the system, and the number and amount outstanding on November 1, 1875:

Denominations.	Number.			Amount.		
	Issued.	Redeemed.	Outstanding.	Issued.	Redeemed.	Outstanding.
1	18,046,176	14,092,126	3,954,050	$18,046,176	$14,092,128	$3,954,050 00
2	6,039,732	4,816,623	1,223,129	12,079,504	9,633,246	2,446,258 00
5	47,055,184	24,926,771	22,128,413	235,275,920	124,633,855	110,642,065 00
10	17,410,507	7,608,532	9,801,975	174,105,070	76,085,320	98,019,750 00
20	5,296,064	2,004,464	3,291,600	105,921,280	40,089,280	65,832,000 00
50	884,165	381,037	503,128	44,208,250	19,051,850	25,156,400 00
100	645,838	299,428	346,410	64,583,800	29,942,800	34,641,000 00
500	18,476	14,471	4,005	9,238,000	7,235,500	2,002,500 00
1,000	5,530	5,048	482	5,530,000	5,048,000	482,000 00
Add for fragments of notes lost or destroyed						7,205 30
	95,401,692	54,148,500	41,253,192	668,988,000	*325,811,977	343,183,228 30

* Deduct from the amount redeemed $7,205.30, for payments of notes lost or destroyed.

The following table exhibits the increase and decrease, by number and amount, of each denomination of national-bank notes issued during the year ending November 1, 1875; from which it will be seen that while the notes of the denominations of ones, twos, and fives have largely decreased during the past year, there has been a considerable increase in the notes of higher denominations, particularly of the tens and twenties:

Denominations.	Number.		Amount.	
	Increase.	Decrease.	Increase.	Decrease.
1		1,450,603		$1,450,603
2		560,965		1,121,930
5		4,073,118		20,365,590
10	377,606		$3,776,060	
20	301,099		6,021,980	
50	67,734		3,386,700	
100	50,500		5,050,000	
500		1,663		831,500
1,000		75		75,000
Totals	796,939	6,086,424	18,234,740	23,844,623

The following table shows the amount of national-bank notes received at this Office and destroyed yearly, since the organization of the system:

Prior to November 1, 1865	$175,490
During the year ending October 31, 1866	1,050,382
During the year ending October 31, 1867	3,401,423
During the year ending October 31, 1868	4,602,825
During the year ending October 31, 1869	8,603,729
During the year ending October 31, 1870	14,305,689
During the year ending October 31, 1871	24,344,047
During the year ending October 31, 1872	30,211,720
During the year ending October 31, 1873	36,433,171
During the year ending October 31, 1874	49,939,741
During the year ending October 31, 1875	137,697,696
Additional amount destroyed of notes of banks in liquidation	15,038,858
Total	325,804,771

TAXATION.

The Comptroller in September last issued a circular addressed to the national banks, requesting returns of State taxation for the years

1874 and 1875. The assessment for 1875 had not generally been made at that time, and the returns for that year were therefore meager. The number of banks in operation during the year 1874 was nineteen hundred and seventy-seven, forty-one of which paid no State taxes because they were organized after the assessment for the year had been made, and thirty-six failed to reply. Returns were, however, received from nineteen hundred banks, having a capital of $476,836,031. The thirty-six banks which made no returns had a capital of $16,800,000.

The returns made to the Treasurer for 1874 were classified by States in this Office, and the following table prepared, giving the amount of United States and State taxes and the rate of taxation in every State in the Union for that year.

States and Territories.	Capital.	Amount of taxes.			Ratios to capital.		
		United States.	State.	Total.	United States.	State.	Total.
					Per cent.	*Per cent.*	*Per cent.*
Maine	$9,654,019	$111,403	$192,290	$303,693	1.2	2.0	3.2
New Hampshire	5,317,037	60,002	106,587	166,589	1.1	2.1	3.2
Vermont	7,802,712	88,152	139,297	227,449	1.1	1.8	2.9
Massachusetts	91,754,078	1,163,858	1,878,368	3,042,226	1.3	2.1	3.4
Rhode Island	20,504,800	201,317	224,540	425,857	1.0	1.1	2.1
Connecticut	25,424,020	271,801	439,402	711,203	1.1	1.8	2.9
New York	106,599,708	2,026,960	3,044,565	5,071,525	1.9	2.9	4.8
New Jersey	13,830,466	205,451	282,645	488,096	1.5	2.1	3.6
Pennsylvania	53,178,261	871,220	377,546	1,248,766	1.6	0.7	2.3
Delaware	1,523,185	20,798	6,630	27,428	1.4	0.4	1.8
Maryland	13,720,997	181,249	194,697	375,946	1.3	1.5	2.8
Dist. of Columbia	1,309,512	19,747	5,288	25,035	1.5	0.4	1.9
Virginia	3,580,913	54,057	52,207	107,164	1.5	1.6	3.1
West Virginia	2,375,216	33,484	34,507	67,991	1.4	1.8	3.2
North Carolina	2,173,338	30,837	38,601	69,438	1.4	1.9	3.3
South Carolina	3,156,250	34,421	111,654	146,075	1.1	3.6	4.7
Georgia	2,843,962	31,656	53,872	85,528	1.1	1.9	3.0
Alabama	1,634,883	18,746	25,289	44,035	1.2	1.7	2.9
Louisiana	4,000,000	61,642	52,270	113,912	1.5	1.4	2.9
Texas	1,054,897	14,384	22,863	37,247	1.4	2.3	3.7
Arkansas	205,000	2,488	8,030	10,518	1.2	3.9	5.1
Kentucky	9,076,127	103,635	47,655	151,290	1.1	0.5	1.6
Tennessee	3,457,897	50,290	70,844	121,134	1.5	2.2	3.7
Ohio	29,112,642	403,697	642,054	1,045,751	1.4	2.2	3.6
Indiana	17,936,404	214,977	429,585	644,562	1.2	2.6	3.8
Illinois	20,507,963	367,718	420,461	788,179	1.8	2.2	4.0
Michigan	10,098,162	134,052	149,720	283,772	1.3	1.5	2.8
Wisconsin	3,704,032	67,485	76,330	143,815	1.8	2.3	4.1
Iowa	6,048,562	98,421	117,115	215,536	1.6	2.1	3.7
Minnesota	4,268,026	63,224	76,876	140,100	1.5	2.0	3.5
Missouri	9,308,198	112,525	190,140	302,665	1.2	2.1	3.3
Kansas	1,783,235	26,182	41,867	68,049	1.5	3.3	4.8
Nebraska	1,025,000	20,883	34,282	55,165	2.0	3.3	5.3
Oregon	250,000	5,808	3,488	9,296	2.3	1.4	3.7
California	3,358,594	46,044	.....	46,044	1.4	.....	1.4
Colorado	748,581	16,983	10,750	27,733	2.3	2.1	4.4
Utah	439,402	5,387	4,137	9,524	1.2	1.4	3.6
New Mexico	300,000	3,718	3,150	6,868	1.2	1.1	2.3
Wyoming	125,000	1,697	1,180	2,877	1.4	2.5	3.9
Idaho	100,000	1,393	129	1,522	1.4	0.1	1.5
Dakota	50,000	614	1,225	1,839	1.2	2.5	3.7
Montana	350,000	6,777	8,190	14,967	1.9	2.3	4.2
Total	*493,751,679	7,256,083	9,620,326	16,876,409	1.5	2.0	3.5

* Including the capital of banks from which returns of the amount of State taxation were not received.

Similar tables will be found in the appendix, giving returns by States for 1867 and 1869.

An examination of these three tables will show that the State of New York paid the highest bank-taxes of any of the Eastern or Middle States, the United States taxes for that State in the years named being respectively 2.6, 2.6, and 1.9 per cent., and the State taxation 3.5, 2.7, and 2.9 per

cent.; totals, in 1867, 6.1, in 1869, 5.3, and in 1874, 4.8 per cent. The corresponding totals for New Jersey were, in 1867, 4.2; in 1869, 4.2, and in 1874, 3.6 per cent.; for Pennsylvania, in 1867, 3.; in 1869, 3.2; and in 1874, 2.3; for Massachusetts, in 1867, 4.0; in 1869, 3.7, and in 1874, 3.4; for Maine, 3.5, 3.9, and 3.2; New Hampshire, 3.8, 4.1, and 3.2; Connecticut, 3.3, 3.4, and 2.9; and in the remainder of the Eastern and Middle States more than 2 per cent. in 1874, with the exception of Delaware, which paid but 1.8 per cent.

Of the Western States, the national banks in Ohio paid the following percentage of taxation: in the year 1867, 4.6; in the year 1869, 5.5, and in the year 1874, 3.6. In the State of Indiana for the same years the percentage was 3.7, 4.1, and 3.8. In Illinois it was 4.8, 4.8, and 4.0; in Michigan, 3.5, 3.2, and 2.8; in Missouri, 3.4, 3.7, and 3.3; in Wisconsin, 4.7, 4.9, and 4.1; Minnesota, 3.3, 4.2, and 3.5; Kansas, 4.5, 8.4, and 4.8; Nebraska, 7.1, 6.4, and 5.3.

Of the Southern States, South Carolina paid the following percentages: 3.4 in 1869, and 4.7 in 1874; Tennessee, 4.1, 2.7, and 3.7, in the three years named; and the remainder of the Southern States paid in 1874 more than 3 per cent., with the exception of Louisiana and Alabama, which paid 2.9, and of Kentucky, which paid but 1.6 per cent.

Returns were also received from the national banks in 1866, which were not tabulated by States. The United States taxes for that year were $8,069,938; State taxes, $7,949,451; total, $16,019,389.

An estimate of the total taxation of the national banks for the ten years ending in 1875 has been made, by assuming the rate of State taxation in the years in which no returns were made to this Office to have been the same as the known rate in the years which immediately preceded them. For the years 1872 and 1873 the necessary allowance has been made in the estimate for the amount of the income and license tax and the stamp-tax on promissory notes, which taxes had then been repealed. Such estimate is shown in the following table:

Years.	Capital stock.	Amount of taxes.			Ratios to capital.		
		United States.	State.	Total.	United States.	State.	Total.
					Per ct.	*Per ct.*	*Per ct.*
1866	$410,593,435	$7,949,451	$8,069,938	$16,019,389	1.9	2.0	3.9
1867	422,804,666	9,525,607	8,813,127	18,338,734	2.2	2.1	4.3
1868	420,143,491	9,465,652	8,757,656	18,223,308	2.2	2.1	4.3
1869	419,619,860	10,081,244	7,297,096	17,378,340	2.4	1.7	4.1
1870	429,314,041	10,190,682	7,465,675	17,656,357	2.4	1.7	4.1
1871	451,994,133	10,649,895	7,860,078	18,509,973	2.4	1.7	4.1
1872	472,956,958	6,703,910	8,343,772	15,047,682	1.4	1.8	3.2
1873	488,778,418	7,004,646	8,499,748	15,504,394	1.4	1.8	3.2
1874	493,751,679	7,256,083	9,620,326*	16,876,409	1.5	2.0	3.5
1875	499,438,171	7,305,134	10,076,332	17,381,466	1.5	2.0	3.5

* Capital of banks reporting State taxes, $476,836,031.

The Comptroller has heretofore, in his reports, called the attention of Congress to the fact that while the national banks are subject to a tax upon their entire capital (which can be easily ascertained from their books and reports,) and not unfrequently upon the market value of their shares, the capital and shares of other corporations, the amount and value of which can be as readily ascertained by appropriate legislation, are assessed at not one-half of their value; while private firms and individuals are almost wholly exempted from bearing their share of the burden.

Letters recently received by the Comptroller from the presidents of two principal banks—one in the East and the other in the West—refer

to this greatest of all economical subjects in such plain terms, that he cannot forbear calling the attention of Congress to their suggestions. Many of the shareholders of the national banks depend for their income chiefly upon the earnings of these institutions; and it does not seem just that these thousands of shareholders shall, by any construction of law, be compelled to pay an undue proportion of the taxes of the country. It is submitted that the law, as now interpreted by different State courts and by assessors and collectors, is neitheir equitable nor honest.

A national bank in one of the eastern cities recently refused to pay its taxes, on the ground that the shares of a neighboring State bank were assessed at no greater value than its own, though worth several times as much. The court is understood to have held that the bank had no right to complain, since its shares were not taxed above their value; and that it was not for it to consider whether the shares of other banks of much greater value were taxed at the same rate. The tax commissioners of New York city propose to tax the banks of that city, national and State, not only upon the full par value of their shares but on the total amount of their surplus, without any allowance or abatement. In consequence of this purpose a committee, composed of officers of five principal banks in that city, was appointed to confer with the commissioners. The law of New York provides, in substance, that so much of the property of individual stockholders as is held by them in bank-stock is liable to be taxed for the value of the shares; and a penalty is prescribed if any bank allows the transfer of shares after the tax has become due and before it is paid. The banks in New York City, in order to avoid annoyance and vexatious suits, have for several years paid the tax (about three per cent. annually) to the city direct, instead of leaving it for the stockholders to pay; and the chairman of the committee, in his communication, writes as follows:

The tax commissioners refuse to allow time either for a decision by the State court of last resort or for appeal to the legislature for redress. They take the ground that, as they must be governed by what the courts say is the law, and as the courts have spoken, they must act, and act before the 1st of January, 1876.

We reply, substantially as follows:

1st. We speak for national banks, and say they owe their existence to the laws of Congress, and not to the legislature of New York.

Congress expressly exempts the surplus of national banks from taxation for wise and obvious reasons. It desires to build up strong instead of weak banks, for the safety and benefit of the public, no less than for the profit and advantage of the stockholders.

On the other hand, if local taxation is to be exercised without any restriction on the part of the United States, then national banks may be taxed out of existence, and State banks substituted, with all the concomitant evils that may arise. For it is certain that, if existing profits of banks now held as a *surplus fund* are to be subject to an additional tax of three per cent., that fund will be divided among the shareholders, for the simple reason that no bank could afford to carry it.

2d. The construction of the State law by the tax commissioners seems to the committee unsound; for the law says the tax is to be levied on the *value* of the shares; not the market value, or intrinsic value, but "value." And the practice heretofore has been in accordance with law, on the supposition that, without any qualifying word, *par* was understood. The tax has been laid accordingly. Again, the rule of taxation, as adopted by the tax commissioners, has been a practical violation of the United States law, which says the capital of banks shall not be taxed at a higher *rate* than is assessed on other personal property. Whereas the city (not the country) has taxed the shares at $100 each, if that were the par; while other real and personal property was taxed at only sixty dollars on every hundred dollars. A bank, for instance, of $200,000 capital, is taxed on that sum; while an individual worth that would be taxed on $120,000. This is unjust, oppressive, and *ought to be* illegal.

3d. But we claim that the State has no right whatever to tax national banks, excepting to the extent that such right is explicitly granted by the United States law. This principle is made quite emphatic by the United States Supreme Court in the recent

decision of case No. 502, the Farmers and Mechanics' National Bank, Buffalo, against Peter C. Dearing, in relation to usury. In that case, under the third head, the court says: "The national banks were brought into existence by the government for its own good. The National government has exclusive control over them. No State has any. Against the national will, in regard to the banks, as in regard to all other institutions of national creation, the States have no power, by taxation or otherwise, to retard, impede, burden, or in any manner control. This is clear, and, as we think, conclusive."

The president of the Western bank, in his letter, says: "The greatest wrong now existing under our national-currency act is that of taxation—the great lack of uniformity in assessing values, varying from less than twenty-five per cent. of actual value to full value and surplus.

"Section 95 (section 5219 Revised Statutes) clearly *intended* by one of its restrictions to provide against excessive tax on national-bank shares, but it practically fails to protect us, because 'other moneyed capital' is not assessed at one-half value, while in many instances (our own as one) the full value is assessed. We are powerless to *raise* the assessments of others, though unequal; and ours, being actual value, cannot be 'sworn down.' It is now subject to the caprice of local assessors, who gain popularity by the inequality they make, as against all corporate capital—national banks in particular. If this section could be so amended as to read (10th line of section 5219), 'assessed upon other *personal and real property* in the hands of individual citizens of such State,' the evil would be remedied. In this State, our principal 'other moneyed capital' is in railroads, the shares of which are *not taxed*. They pay a small percentage on their earnings; not one-half of one per cent. on their capital, actual or nominal."

The section referred to provides that the real property of the national banks shall be subject to taxation to the same extent, for State, county, or municipal purposes, as is other real property; and it is therefore not probable that it was intended to impose upon the shares of the national banks a tax greater than that imposed upon the shares of other corporations.

Section 5214 of the Revised Statutes provides that the national banks shall pay to the Treasurer the following taxes: One per cent. annually upon the average amount of notes in circulation, and one-half of one per cent. annually upon the average amount of deposits, and the average amount of capital stock not invested in United States bonds.

The following table exhibits the amount of United States taxes* collected, annually, from the organization of the system (1863) to July 1, 1875; which amount has been collected without any expense whatever to the government except the compiling of the returns in the Treasury:

Year.	On circulation.	On deposits.	On capital.	Aggregate.
1864	$53,096 97	$95,811 25	$18,402 23	$167,310 45
1865	733,247 59	1,087,530 86	133,251 15	1,954,029 60
1866	2,106,785 30	2,633,102 77	406,947 74	5,146,835 81
1867	2,868,636 78	2,650,180 07	321,881 36	5,840,698 21
1868	2,946,343 07	2,564,143 44	306,781 67	5,817,268 18
1869	2,957,416 73	2,614,553 58	312,918 68	5,884,888 99
1870	2,949,744 13	2,614,767 61	375,962 26	5,940,474 00
1871	2,987,021 69	2,802,840 85	385,292 13	6,175,154 67
1872	3,193,570 03	3,120,984 37	389,356 27	6,703,910 67
1873	3,353,186 13	3,196,569 29	454,891 51	7,004,646 93
1874	3,404,483 11	3,209,967 72	469,048 02	7,083,498 85
1875	3,283,405 89	3,514,310 39	507,417 76	7,305,134 04
Totals	30,836,937 42	30,104,762 20	4,082,150 78	65,023,850 40

* The amount collected by the Commissioner of Internal Revenue from State banks, savings-banks, and private banks and bankers, during the fiscal year ended June 30, 1875, was as follows:

On deposits	$2,972,260 27
On capital	1,102,241 58
On circulation	*22,746 27
Total	4,097,248 12

*Of this amount, $11,627.92 was derived from the tax of ten per cent. upon unauthorized circulation.

Two cent stamp-tax on bank-checks.

The Secretary of the Treasury, upon the appeal of the Comptroller in April last, decided that examinations of national banks, made for the purpose of ascertaining whether the law requiring the affixing of the two-cent stamp upon bank-checks was observed by them, could be conducted only by bank examiners appointed by this Office; and this opinion has been since confirmed by the United States court for the district of Pennsylvania. Since that time, in compliance with the request of the then Commissioner of Internal Revenue, copies of the reports of the examiners upon this subject have been regularly transmitted to that Office. The officers of internal revenue have considered it their duty to impose a penalty for any neglect to comply with this provision, the amount of the penalty being dependent upon the number of checks found unstamped. No penalty can be collected under the law unless the intent to defraud the government shall be made apparent. The national banks of Baltimore, and associations in many other localities, insisted that there was no intention to defraud; but that the few checks found unstamped were the result either of inadvertence or of the poor sticking quality of the stamps. They have, however, paid under protest the penalties demanded, preferring this course rather than to be forced into litigation with the government. Of the whole number of banks examined since the decision of the Secretary, not more than five have been reported by the examiners as guilty of intentional fraud.

The revenue derived in the fiscal year ending June 30, 1874, from the *sale* of the two-cent stamps affixed to sight-drafts and checks, was $1,502,549; the total face value of stamps *manufactured* during the fiscal year ending June 30, 1875, was $1,944,166. The amount of income arising from the actual use of these stamps during any fiscal year cannot be accurately determined. The annoyance to the banks and to this Office growing out of the strict enforcement of this provision of the law, has been greater than that in reference to all the other restrictions of the national banking laws combined; and the Comptroller, believing that the amount of revenue derived from this source does not counterbalance the evils arising from the surveillance to which all banks and bankers are necessarily subjected thereby, and being satisfied that, in almost every instance, the failure to comply strictly with this requirement is chargeable to the carlessness of transient depositors or to the insufficiency of the mucilage upon government stamps, urgently recommends the repeal of the provision requiring the affixing of the two-cent stamp upon bank-checks.

DIVIDENDS AND EARNINGS.

Section 5212 of the Revised Statutes provides that the national banks shall report to the Comptroller, within ten days after declaring any dividend, the amount of such dividend, and the amount of net earnings in excess of such dividend. From these returns the following table has been prepared, exhibiting the aggregate capital and surplus, total dividends, and total net earnings of the national banks, with the ratio of dividends to capital, dividends to capital and surplus, and earnings to capital and surplus, for each half year, commencing March 1, 1869, and ending September 1, 1875; from which it will be seen that the average dividends upon capital during the last year were less than ten per cent., while the ratio of dividends to capital and surplus was less than eight per cent:

Period of six months ending—	No. of banks.	Capital.	Surplus.	Total dividends.	Total net earnings.	RATIOS.		
						Dividends to capital.	Divid'nds to capital and surplus.	Earnings to capital and surplus.
						Per ct.	*Per ct.*	*Per ct.*
Sept. 1, 1869	1,481	$401,650,802	$83,105,848	$21,767,231	$20,221,184	5.42	4.50	6.04
Mar. 1, 1870	1,571	416,366,991	86,118,210	21,479,095	28,996,934	5.16	4.27	5.77
Sept. 1, 1870	1,601	425,317,104	91,630,620	21,080,343	26,813,885	4.96	4.08	5.19
Mar. 1, 1871	1,605	422,699,165	94,672,401	22,205,150	27,243,102	5.18	4.24	5.21
Sept. 1, 1871	1,693	445,999,264	98,286,591	22,125,279	27,315,311	4.96	4.07	5.02
Mar. 1, 1872	1,750	450,693,706	99,431,243	22,859,826	27,502,539	5.07	4.16	5.00
Sept. 1, 1872	1,852	465,676,023	105,181,942	23,827,289	30,572,891	5.12	4.17	5.36
Mar. 1, 1873	1,912	475,918,683	114,257,288	24,826,061	31,926,478	5.22	4.21	5.41
Sept. 1, 1873	1,955	488,100,951	118,113,848	24,823,029	33,122,000	5.09	4.09	5.46
Mar. 1, 1874	1,967	489,510,323	123,469,859	23,529,988	29,544,120	4.81	3.84	4.82
Sept. 1, 1874	1,971	489,938,284	128,364,039	24,929,307	30,036,811	5.09	4.03	4.86
Mar. 1, 1875	2,007	493,568,831	131,560,637	24,750,816	29,136,007	5.01	3.96	4.66
Sept. 1, 1875	2,047	497,864,833	134,123,649	24,317,785	28,800,217	4.88	3.85	4.56

The following table exhibits, in a concise form, the ratio of dividends to capital, of dividends to capital and surplus, and of net earnings to capital and surplus, of the national banks in every State of the Union, and in the principal cities, semi-annually from March 1, 1871, to September 1, 1875.

Table exhibiting, by States and reserve-cities, the ratios of dividends to capital, and

	States, Territories, and cities.	Ratios of dividends to capital for six months ending—										Ratios of dividends to			
		1871.		1872.		1873.		1874.		1875.		1871.		1872.	
		Mar. 1.	Sept. 1.	Mar. 1.	Sept. 1.	Mar. 1.	Sept. 1.	Mar. 1.	Sept. 1.	Mar. 1.	Sept. 1.	Mar. 1.	Sept. 1.	Mar. 1.	Sept. 1.
		Perct.	Perct.	Perct.	Perct.	Perct.	Perct.	Perct.	Perct.	Perct.	Perct.	Perct.	Perct.	Perct.	Perct.
1	Maine	5.2	5.1	5.1	5.2	5.5	5.5	6.1	5.4	5.3	5.4	4.4	4.4	4.3	4.4
2	New Hampshire	4.8	4.7	4.8	4.6	4.7	4.3	4.8	4.9	5.0	4.9	4.2	4.0	4.1	4.0
3	Vermont	4.7	4.8	4.8	4.6	4.7	5.3	4.7	4.6	4.7	4.6	4.1	4.2	4.2	4.0
4	Massachusetts	5.4	5.3	5.4	5.4	5.5	5.4	5.1	5.2	5.2	5.3	4.3	4.2	4.3	4.2
5	Boston	4.9	4.8	4.7	4.5	4.4	4.9	4.4	4.7	4.4	4.1	4.1	3.9	3.9	3.7
6	Rhode Island	4.4	4.3	4.4	4.4	4.4	4.5	4.2	4.3	4.6	4.5	4.0	3.9	3.9	3.9
7	Connecticut	5.3	5.2	5.2	5.3	5.4	5.2	5.1	5.2	5.2	5.4	4.4	4.2	4.3	4.3
8	New York	4.8	4.4	4.7	4.4	5.1	4.6	4.7	4.5	5.0	4.6	4.1	3.7	3.9	3.6
9	New York City	4.7	4.7	4.9	4.7	4.8	4.7	4.6	4.8	4.8	4.5	3.7	3.7	3.9	3.7
10	Albany	5.3	4.9	4.1	5.7	5.4	4.9	5.2	5.0	5.6	4.7	3.9	3.6	3.0	3.9
11	New Jersey	5.6	5.1	5.7	5.4	5.3	5.4	4.9	5.1	4.9	4.8	4.6	4.2	4.6	4.3
12	Pennsylvania	5.3	5.2	5.4	5.2	5.0	5.2	4.8	5.1	4.9	5.0	4.3	4.2	4.3	4.2
13	Philadelphia	4.9	5.7	5.7	5.8	5.8	5.8	5.7	5.7	5.8	5.5	4.2	4.1	4.1	4.1
14	Pittsburgh	5.1	5.4	5.4	5.3	5.5	5.6	5.1	5.4	5.2	4.8	4.1	4.2	4.2	4.1
15	Delaware	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.2	5.2	4.2	4.1	4.1	4.1
16	Maryland	5.6	5.2	5.1	5.3	5.2	5.0	5.1	5.2	5.5	5.4	4.7	4.4	4.4	4.5
17	Baltimore	4.8	4.7	5.1	5.3	5.1	5.0	4.9	5.7	5.1	5.1	4.1	4.0	4.3	4.5
18	District of Columbia	.....	.....	.....	4.0	4.0	4.0	4.0	4.0	4.0	4.0	.....	.....	.....	3.7
19	Washington	5.0	5.0	2.6	4.6	5.0	4.6	2.4	8.0	4.7	4.7	4.0	4.0	2.1	3.7
20	Virginia	4.7	4.3	4.6	4.7	4.8	4.1	4.7	4.3	4.6	4.6	4.3	4.0	4.2	4.2
21	West Virginia	5.3	4.1	5.4	5.3	5.3	5.4	4.5	4.3	5.0	5.1	4.7	3.7	4.9	4.8
22	North Carolina	4.3	4.4	6.0	5.0	5.3	5.5	4.6	4.7	4.3	4.2	3.9	4.2	5.7	4.8
23	South Carolina	6.0	5.4	5.4	5.1	4.2	4.8	4.1	4.3	4.8	4.4	5.4	5.0	5.0	4.8
24	Georgia	9.3	5.3	4.9	5.3	5.3	5.2	5.4	5.3	5.1	3.7	5.2	4.8	4.4	4.7
25	Florida	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	Alabama	4.7	5.6	3.4	6.4	4.3	5.0	4.7	5.8	4.2	3.9	4.6	5.2	3.9	6.2
27	New Orleans	6.1	5.2	5.6	5.5	5.3	3.4	2.5	3.6	2.9	4.1	5.7	5.0	5.4	5.3
28	Texas	1.9	5.9	4.4	7.7	11.2	3.9	5.8	9.3	3.4	2.6	1.7	5.4	4.0	7.0
29	Arkansas	.....	.....	.....	.....	.....	3.3	3.7	3.3	.....	7.1	.....	.....	.....	.....
30	Kentucky	5.0	4.6	4.2	4.8	4.9	4.7	4.6	4.8	4.1	4.5	5.0	4.3	3.9	4.5
31	Louisville	5.0	11.0	5.4	5.0	5.1	4.5	3.7	5.0	5.0	4.7	4.4	9.9	4.9	4.6
32	Tennessee	8.6	5.6	5.8	6.0	5.6	5.7	4.7	5.4	4.9	5.3	7.7	5.2	5.3	5.5
33	Ohio	5.7	5.6	5.8	6.0	5.7	5.6	5.0	5.3	5.3	5.5	4.7	4.6	4.7	4.9
34	Cincinnati	4.8	5.4	4.9	5.4	4.9	5.5	4.9	5.5	4.9	5.5	4.2	4.6	4.2	4.6
35	Cleveland	3.0	3.9	4.2	5.1	4.9	4.7	3.7	4.9	4.9	5.0	2.7	3.5	3.7	4.5
36	Indiana	6.0	5.6	5.4	5.9	6.5	5.2	4.8	5.6	5.0	5.3	4.8	4.5	4.4	4.8
37	Illinois	6.3	6.1	5.7	5.5	5.6	6.2	5.7	7.0	5.8	6.0	5.0	4.9	4.7	4.5
38	Chicago	4.8	5.0	.....	6.2	4.1	5.1	4.0	3.7	3.5	4.4	3.6	3.8	.....	5.0
39	Michigan	6.1	5.1	6.5	6.1	6.2	5.5	5.5	4.8	5.6	5.4	4.7	4.1	5.3	5.1
40	Detroit	5.0	5.0	5.3	5.0	5.9	5.5	5.8	5.5	5.8	5.5	4.1	4.1	4.3	3.8
41	Wisconsin	9.8	4.1	4.9	4.9	5.5	5.3	7.1	5.0	6.9	6.1	8.0	3.4	4.2	4.1
42	Milwaukee	5.3	4.6	4.9	19.0	5.9	5.9	4.6	4.9	4.9	5.3	4.2	3.7	3.8	15.2
43	Iowa	5.8	5.1	4.8	14.1	5.3	5.6	5.3	6.9	5.5	5.9	4.8	4.2	4.0	9.6
44	Minnesota	8.1	6.9	5.2	5.9	4.7	6.5	6.4	5.8	6.2	3.8	6.9	5.9	4.6	5.1
45	Missouri	17.3	5.3	5.2	4.7	6.0	5.9	3.7	3.9	4.6	4.6	14.2	4.7	4.7	4.2
46	Saint Louis	3.1	3.3	3.2	3.2	3.6	4.0	3.3	3.7	3.9	3.7	2.9	3.0	2.9	2.8
47	Kansas	6.1	5.6	4.6	5.5	6.7	4.9	3.2	5.7	4.1	4.5	5.6	5.3	4.4	5.0
48	Leavenworth	8.0	5.0	10.0	.....	.....	.....	.....	.....	.....	.....	6.2	3.7	7.3	.....
49	Nebraska	6.2	6.2	7.1	6.6	6.8	9.8	4.8	17.2	5.1	7.6	5.4	5.4	6.4	5.9
50	Oregon	.....	4.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	.....	3.9	5.9	5.8
51	California	.....	.....	.....	.....	5.0	3.0	5.6	6.6	6.5	6.3	.....	.....	.....	.....
52	San Francisco	.....	.....	0.8	5.0	5.8	5.0	6.4	6.6	6.6	6.5	.....	.....	.....	4.9
53	New Mexico	.....	4.0	7.0	7.0	7.0	6.5	6.5	6.5	6.5	6.5	.....	.....	6.3	6.9
54	Colorado	.....	8.6	2.5	3.3	4.5	2.8	2.8	17.9	13.1	7.2	.....	7.1	2.1	2.8
55	Utah	.....	.....	50.0	.....	.....	15.0	4.4	2.7	4.0	4.0	.....	.....	21.8	.....
56	Wyoming	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
57	Idaho	16.0	15.0	14.0	13.0	15.0	12.0	23.0	20.0	20.0	20.0	14.9	13.9	12.7	11.7
58	Montana	.....	.....	12.0	.....	3.9	.....	3.4	11.8	12.5	3.6	.....	.....	10.9	.....
59	Dakota	.....	.....	.....	.....	.....	.....	6.0	4.5	.....	.....	.....	.....	.....	.....
	Averages	5.2	5.0	5.1	5.1	5.2	5.1	4.8	5.1	5.0	4.9	4.2	4.1	4.2	4.2

of dividends and of earnings to capital and surplus, March 1, 1871, *to September* 1, 1875.

capital and surplus for six months ending—						Ratios of earnings to capital and surplus for six months ending—										
1870.		1874.		1875.		1871.		1872.		1873.		1874.		1875.		
Mar. 1.	Sept. 1.	Mar. 1.	Sept. 1.	Mar. 1.	Sept. 1.	Mar. 1.	Sept. 1.	Mar. 1.	Sept. 1.	Mar. 1.	Sept. 1.	Mar. 1.	Sept. 1.	Mar. 1.	Sept. 1.	
Perct.	Perct.	Perct.	Perct.	Perct.	Perct.	Perct.	Perct.	Perct.	Perct.	Perct.	Perct.	Perct.	Perct.	Perct.	Perct.	
4.6	4.6	5.1	4.4	4.3	4.4	5.7	6.0	5.2	5.6	5.8	5.7	5.9	5.4	5.7	5.3	1
4.0	3.7	4.1	4.1	4.1	4.1	5.3	4.6	4.8	4.9	5.4	2.7	6.3	4.5	4.8	4.2	2
4.0	4.4	3.9	3.8	3.8	3.7	5.3	4.8	4.9	5.3	5.8	5.3	5.2	5.1	5.1	4.8	3
4.2	4.1	3.9	4.0	4.0	4.0	5.5	5.2	5.0	5.5	5.7	5.6	4.7	5.1	4.5	4.7	4
4.0	3.9	3.5	3.7	3.5	3.3	4.9	4.6	4.6	4.5	4.9	4.8	4.4	4.4	4.1	3.8	5
3.9	3.8	3.6	3.6	3.8	3.7	4.8	4.7	4.6	5.3	5.4	5.3	5.5	4.7	4.3	4.4	6
4.3	4.1	4.0	4.1	4.0	4.1	5.3	5.2	5.1	5.5	5.3	5.2	4.9	4.7	4.3	4.6	7
4.2	3.8	3.8	3.7	4.1	3.7	5.0	4.5	4.5	5.1	5.1	5.0	4.5	4.3	4.3	4.4	8
3.7	3.7	3.5	3.6	3.6	3.4	4.4	4.5	4.0	4.8	4.3	5.1	4.1	4.8	3.8	3.6	9
3.7	3.3	3.5	3.3	3.5	2.7	3.7	3.6	5.6	5.2	5.7	4.7	5.3	3.9	3.4	3.3	10
4.2	4.3	3.9	4.0	3.9	3.8	5.8	5.9	5.6	5.4	5.4	5.1	4.4	3.5	5.1	4.8	11
4.0	4.1	3.8	4.0	3.9	3.9	4.8	5.2	5.2	5.0	5.3	5.2	5.0	4.6	4.3	4.1	12
4.1	4.1	4.0	4.0	4.1	3.8	4.4	4.4	4.6	4.6	4.6	4.7	4.3	4.5	4.2	3.9	13
4.3	4.2	3.8	4.1	3.9	3.7	5.0	4.8	4.9	5.0	4.4	5.5	4.4	5.0	4.4	4.3	14
4.0	4.0	4.0	4.0	4.0	4.0	4.5	4.6	4.4	4.9	4.9	4.7	4.2	4.5	4.3	4.0	15
4.4	4.1	4.2	4.2	4.4	4.3	5.3	4.8	4.5	5.5	4.9	5.6	5.2	5.4	4.7	5.1	16
4.2	4.1	4.1	4.7	4.2	4.3	5.3	4.9	5.4	5.6	4.3	5.0	5.4	4.7	4.8	4.2	17
3.6	3.6	3.6	3.5	3.5	3.5	.....	.....	.....	4.8	5.8	5.9	5.7	5.1	5.8	2.4	18
3.9	3.7	1.9	6.2	3.9	3.9	5.2	7.6	3.0	5.3	6.2	6.4	4.9	4.7	6.2	5.0	19
4.2	3.6	4.0	3.7	3.8	3.9	6.8	6.6	5.3	6.0	6.9	6.4	5.0	4.6	4.6	5.8	20
4.7	4.7	3.9	3.7	4.2	4.2	5.3	3.5	5.8	5.9	5.4	5.2	4.7	4.2	5.5	5.8	21
5.0	5.1	4.3	4.3	3.9	3.9	5.9	6.2	7.3	3.7	6.5	6.7	5.8	5.5	5.5	5.2	22
3.8	4.3	3.1	3.8	4.2	3.8	7.5	5.9	6.7	6.5	6.1	5.6	4.9	2.9	6.2	4.3	23
4.6	4.5	4.7	4.6	5.1	3.0	6.7	5.8	5.9	6.7	6.6	7.9	4.2	4.7	4.0	3.0	24
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.1	5.9	25
4.0	4.6	4.3	5.3	3.8	3.6	11.3	5.7	4.3	9.4	5.2	8.6	3.9	5.8	4.4	4.6	26
5.0	3.2	2.3	3.4	2.7	3.8	7.5	3.3	6.3	6.9	6.3	4.2	3.3	4.8	2.6	3.7	27
9.6	3.1	4.8	7.6	2.8	2.1	6.8	6.4	9.1	12.1	10.7	11.2	6.9	8.8	5.7	6.0	28
.....	3.0	3.3	3.0	.....	6.3	.....	.....	.....	0.3	4.3	2.9	3.4	3.8	5.2	1.2	29
4.5	4.3	4.2	4.3	3.6	4.0	6.1	5.4	4.8	5.7	5.8	5.7	5.5	5.3	5.1	5.6	30
4.7	4.1	3.4	4.5	4.6	4.3	4.5	5.7	5.5	5.2	5.8	5.3	5.0	5.8	5.2	5.2	31
5.0	5.1	4.1	4.8	4.3	4.7	8.3	7.1	7.8	5.8	6.5	6.4	4.7	5.8	5.3	5.2	32
4.7	4.6	4.1	4.3	4.3	4.4	6.0	5.9	6.1	6.0	5.9	5.7	5.4	5.1	4.8	5.0	33
4.1	4.5	4.0	4.5	4.0	4.5	6.7	4.4	4.8	5.3	5.8	6.0	5.5	5.2	5.7	5.9	34
4.3	4.1	3.3	4.3	4.3	4.3	3.1	4.0	5.7	5.3	6.6	5.5	4.6	4.9	4.7	4.9	35
5.2	4.2	3.8	4.4	4.7	4.2	6.3	5.4	5.4	5.2	4.7	5.9	5.2	5.4	6.0	4.9	36
4.5	5.0	4.6	5.6	4.6	4.7	6.8	6.6	6.1	6.5	6.7	6.7	5.9	6.4	6.4	6.5	37
4.2	3.9	3.0	2.7	2.5	2.9	7.5	6.9	.....	6.8	8.3	8.0	5.7	4.5	6.0	9.4	38
5.1	4.5	4.5	3.9	4.6	4.4	7.1	6.3	6.6	7.1	6.6	6.7	5.5	5.4	5.3	6.3	39
4.3	4.1	4.3	4.0	4.2	4.0	6.1	6.6	6.9	6.7	6.2	6.8	6.5	6.8	6.2	6.5	40
4.5	4.2	5.7	4.0	5.5	4.8	9.0	5.3	6.7	5.5	6.8	6.8	6.1	6.1	6.1	5.6	41
4.5	4.4	3.5	3.5	3.4	3.5	6.6	6.3	4.9	13.0	6.3	7.4	5.1	4.5	6.6	4.2	42
4.4	4.6	4.3	5.7	4.5	4.8	6.3	5.5	5.9	11.8	6.4	6.2	6.1	5.9	5.8	6.6	43
4.9	5.6	5.5	5.0	5.2	3.2	8.5	7.1	7.1	7.3	7.7	6.2	6.5	7.2	8.0	5.2	44
5.2	5.0	3.2	3.3	3.8	3.8	8.6	7.0	8.0	10.2	8.6	8.9	.....	5.2	2.8	5.4	45
1.2	3.5	2.9	3.3	3.4	3.2	2.9	4.4	4.1	4.0	3.9	4.5	3.6	3.9	4.6	1.8	46
6.1	4.3	2.8	4.9	3.5	3.8	10.8	10.2	9.0	6.9	8.5	8.0	5.2	5.1	5.3	4.2	47
.....	.....	.....	.....	.....	.....	7.4	6.8	6.7	.....	.....	.....	.....	.....	.....	.....	48
5.9	8.2	4.1	15.2	4.5	6.6	12.7	3.6	6.5	7.5	10.7	8.5	6.4	9.6	6.5	7.4	49
5.0	5.0	5.0	5.0	5.0	5.0	7.7	11.9	15.2	20.9	17.4	13.4	11.7	10.1	13.5	14 9	50
4.9	3.0	5.4	6.3	6.3	6.1	.....	.....	.....	.....	7.7	4.8	10.0	8.7	6.1	8.2	51
5.0	5.1	5.9	6.1	5.9	5.8	.....	2.1	5.7	5.5	9.9	6.7	7.1	6.0	9.2	8.7	52
6.6	6.2	6.1	6.0	5.9	5.8	.....	5.0	7.7	9.5	8.7	7.8	7.8	7.4	7.9	6.8	53
4.9	2.2	2.1	13.2	9.7	5.5	0.1	2.8	6.4	4.7	14.5	11.1	13.2	10.3	11.9	9.2	54
	13.7	4.0	2.3	3.2	3.0	1.4	5.5	47.8	1.5	2.2	10.7	4.5	5.7	11.2	6.3	55
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.6	6.8	4.1	8.6	56
11.2	10.5	19.7	16.8	16.5	16.3	16.4	13.9	15.2	23.6	16.8	9.5	21.5	18.3	18.6	18.1	57
4.6	...	2.9	9.9	10.2	3.0	2.8	18.9	16.7	7.6	13.5	11.7	11.6	0.9	8.4	7.1	58
.....	.....	5.8	4.3	.....	.....	.....	.....	.....	.....	.....	2.0	7.6	5.1	6.6	5.1	59
4.2	4.1	3.8	4.0	3.9	3.8	5.2	5.0	5.0	5.4	5.4	5.5	4.8	4.9	4.7	4.6	

SPECIE, PAPER CURRENCY, AND BANK-CHECKS.

The table below exhibits the amount of specie held by the national banks at the dates mentioned—the coin, coin-certificates, and checks payable in coin held by the national banks in the city of New York being stated separately—for the last seven years.

Dates.	Held by national banks in New York City.				Held by other national banks.	Aggregate.
	Coin.	U. S. coin-certificates.	Checks payable in coin.	Total.		
Oct. 5, 1868	$1,698,623 24	$6,390,140	$1,536,353 66	$9,625,116 90	$3,378,596 49	$13,003,713 39
Jan. 4, 1869	1,902,769 48	18,038,520	2,348,140 49	22,289,429 97	7,337,320 29	29,626,750 26
Apr. 17, 1869	1,652,575 21	3,720,040	1,469,826 64	6,842,441 85	3,102,090 30	9,944,532 15
June 12, 1869	2,543,533 96	11,953,680	975,015 82	15,471,229 78	2,983,860 70	18,455,090 48
Oct. 9, 1869	1,792,740 73	16,897,900	1,013,948 72	19,704,589 45	3,297,816 38	23,002,405 83
Jan. 22, 1870	6,196,036 29	28,501,460	2,190,644 74	36,888,141 03	11,457,242 69	48,345,383 72
Mar. 24, 1870	2,647,908 39	21,872,480	1,069,094 30	25,589,482 69	11,507,060 75	37,096,543 44
June 9, 1870	2,942,400 24	18,660,920	1,163,905 88	22,767,226 12	8,332,211 66	31,099,437 78
Oct. 8, 1870	1,607,742 91	7,533,900	3,994,006 42	13,135,649 33	5,324,362 14	18,460,011 47
Dec. 28, 1870	2,268,581 96	14,063,540	3,748,126 87	20,080,248 83	6,227,002 76	26,307,251 59
Mar. 18, 1871	2,982,155 61	13,099,720	3,829,881 64	19,911,757 25	5,857,409 39	25,769,166 64
Apr. 29, 1871	2,047,930 71	9,845,080	4,382,107 24	16,275,117 95	6,456,909 07	22,732,027 02
June 10, 1871	2,249,408 06	9,161,160	3,680,854 92	15,091,422 98	4,833,532 18	19,924,955 16
Oct. 2, 1871	1,121,869 40	7,590,260	1,163,628 44	9,875,757 84	3,377,240 33	13,252,998 17
Dec. 16, 1871	1,454,930 73	17,354,740	4,255,631 39	23,065,302 12	6,529,997 44	29,595,299 56
Feb. 27, 1872	1,490,417 70	12,341,060	3,117,100 90	16,948,578 60	8,559,246 72	25,507,825 32
Apr. 19, 1872	1,828,659 74	10,102,400	4,715,364 25	16,646,423 99	7,787,475 47	24,433,899 46
June 10, 1872	3,782,909 64	11,412,160	4,219,419 52	19,414,489 16	4,842,154 98	24,256,644 14
Oct. 3, 1872	920,767 37	5,454,580	.....	6,375,347 37	3,854,409 42	10,229,756 79
Dec. 27, 1872	1,306,091 05	12,471,940	.....	13,778,031 05	5,269,305 40	19,047,336 45
Feb. 28, 1873	1,958,769 86	11,539,780	.....	13,498,549 86	4,279,123 67	17,777,673 53
Apr. 25, 1873	1,344,950 93	11,743,320	.....	13,088,270 93	3,780,537 81	16,868,808 74
June 13, 1873	1,442,097 71	22,139,080	.....	23,581,177 71	4,368,909 01	27,950,086 72
Sept. 12, 1873	1,063,210 55	13,532,600	.....	14,595,810 55	5,282,658 90	19,868,469 45
Dec. 26, 1873	1,376,170 50	18,325,760	.....	19,701,930 50	7,205,107 08	26,907,037 58
Feb. 27, 1874	1,167,820 09	23,518,640	.....	24,686,460 09	8,679,403 49	33,365,863 58
May 1, 1874	1,530,282 10	23,454,660	.....	24,984,942 10	7,585,027 16	32,569,969 26
June 26, 1874	1,842,525 00	13,671,660	.....	15,514,185 00	6,812,022 27	22,326,207 27
Oct. 2, 1874	1,291,786 56	13,114,480	.....	14,406,266 56	6,834,678 67	21,240,945 23
Dec. 31, 1874	1,443,215 42	14,410,940	.....	15,854,155 42	6,582,605 62	22,436,761 04
Mar. 1, 1875	1,084,555 54	10,622,160	.....	11,706,715 54	4,960,390 63	16,667,106 17
May 1, 1875	930,105 76	5,753,220	.....	6,683,325 76	3,937,035 88	10,620,361 64
June 30, 1875	1,023,015 86	12,642,180	.....	13,665,195 86	5,294,386 44	18,959,582 30
Oct. 1, 1875	753,904 90	4,201,720	.....	4,955,624 90	3,094,704 83	8,050,329 73

The specie, as returned by the national banks on October 1st of this year,* is classified as follows: Coin, $3,364,569.74; United States coin-certificates, $4,485,760—total, $8,050,329,73. It will be observed that the amount of coin then held is less than at any time during the last six years—the amounts held by the banks of New York City and by all the banks of the country being, respectively, $9,450,641.66, and $13,190,615.48 less than the amounts held by them in October of last year.

This marked decrease in the amount of specie is believed to arise from the increased demand for commercial balances abroad, and from the special demand during the late monetary excitement in San Francisco. Authoritative statistics show that sixty-four millions of specie were exported during the first nine months of the present year, as against forty-four millions for the same period last year. The demand from San Francisco is believed to have been about five millions.

The Director of the Mint gives the following estimate of the move

* The average amount of specie held by the national banks of the city of New York during the week ending November 27, was $14,425,000.

ment of specie for the last three years, and of the amount in the country on June 30, 1874, and June 30, 1875:

Specie held by the Treasury and the national banks June 30, 1872	$98,389,861
Estimated amount in Pacific coast States and Territories at that date	20,000,000
Estimated amount held by bankers and others elsewhere	10,000,000
Estimated product of United States mines for two years	140,000,000
Imports of coin and bullion for same period	49,695,343
Total	318,085,207
Deduct exports of coin and bullion during same period	151,238,979
Total estimated amount of specie on hand June 30, 1874	166,846,228
Estimated product of United States mines for the year ending June 30, 1875	72,000,000
Imports of coin and bullion for the year	20,900,717
Total	259,746,945
Deduct exports of coin and bullion during the year	92,132,142
Total estimated amount of coin and bullion in the country June 30, 1875	167,614,803

The Director says that in this estimate no account has been taken of the amount of gold and silver consumed in the arts and manufactures from June 30, 1872, to June 30, 1875. It is difficult to obtain any reliable data upon this point. Whatever the amount may have been, it was reduced to a considerable extent by the plate, and other manufactured articles of gold and silver, which found their way to the melting-pot from the accumulated stock of the country. Making due allowance for the latter, the amount to be deducted from the estimated total may be stated at, say $15,000,000; and, allowing $10,000,000 for possible over-estimates, this would leave the amount of coin and bullion in the country on the 30th of June, 1875, about $142,000,000. Of this total, from $12,000,000 to $15,000,000 consists of silver coin and bullion.

The following table exhibits the amount and kinds of outstanding paper currency of the goverment and of the national banks on the 1st day of November in each year, from 1865 to 1875, inclusive:

Date.	United States issues.				National-bank notes.	Aggregate.
	Fractional currency.	Old demand-notes.	Legal-tender notes.	Total.		
November 1, 1866	$27,588,010	$250,357	$389,945,428	$417,783,795	$292,964,532	$710,748,327
November 1, 1867	30,706,633	208,392	356,956,453	387,871,478	299,153,296	687,024,774
November 1, 1868	33,413,985	137,555	355,883,518	389,435,058	299,887,675	689,322,733
November 1, 1869	37,035,442	113,258	356,000,000	393,148,700	299,910,419	693,059,119
November 1, 1870	39,259,794	102,231	356,000,000	395,392,025	302,607,942	697,999,967
November 1, 1871	39,488,143	92,821	357,500,000	397,080,964	324,773,260	721,854,224
November 1, 1872	42,316,786	86,053	360,566,764	402,969,603	340,993,470	743,963,073
November 1, 1873	48,041,350	79,667	366,922,018	415,043,035	348,350,949	763,393,984
November 1, 1874	47,385,698	75,267	382,000,000	429,460,965	351,927,246	781,388,211
November 1, 1875	40,681,629	69,707	373,236,244	413,987,581	348,216,902	762,204,483
June 30, 1874	45,772,010	76,777	382,000,000	427,848,787	349,894,182	777,742,969
January 14, 1875	45,360,498	72,317	382,000,000	427,432,815	351,861,450	779,294,265

The table below, compiled from information furnished through the courtesy of W. A. Camp, esq., manager of the New York clearing-house association, exhibits the transactions of the clearing-house of that city, and the amount and ratio of currency required for the pay-

ment of daily balances, for the years ending in October, from 1854 to 1875, inclusive.

Years.	No. of banks.	*Capital.	Exchanges.	Balances, paid in money.	Average daily exchanges.	Average daily balances, paid in money.	Ratios.
							Pr. ct.
1854	50	$47,044,960	$5,750,455,987	$297,411,494	$19,104,505	$988,078	5.2
1855	48	48,894,180	5,362,912,098	289,694,137	17,412,052	940,565	5.4
1856	50	52,883,700	6,906,213,328	334,714,489	22,278,108	1,079,794	4.8
1857	50	64,420,200	8,383,226,718	365,313,902	26,968,371	1,182,246	4.4
1858	46	67,146,018	4,756,664,386	314,238,911	15,393,736	1,016,954	6.6
1859	47	67,921,714	6,448,005,956	363,984,683	20,867,333	1,177,944	5.6
1860	50	69,907,435	7,231,143,057	380,693,438	23,401,757	1,232,018	5.3
1861	50	68,900,605	5,915,742,758	353,383,944	19,260,520	1,151,089	6.0
1862	50	68,375,820	6,871,443,501	415,530,331	22,237,682	1,344,758	6.0
1863	50	68,972,508	14,867,597,849	677,626,483	48,428,658	2,207,252	4.6
1864	49	68,586,763	24,097,196,656	885,719,205	77,984,455	2,866,405	3.7
1865	55	80,363,013	26,032,384,342	1,035,765,108	84,796,040	3,373,828	4.0
1866	58	82,370,200	28,717,146,914	1,066,135,106	93,541,195	3,472,753	3.7
1867	58	81,770,200	28,075,159,472	1,144,963,451	93,101,167	3,717,414	4.0
1868	59	82,270,200	28,484,288,637	1,125,455,237	92,182,164	3,642,250	4.0
1869	59	82,730,200	37,407,022,967	1,120,312,308	121,451,393	3,637,397	3.0
1870	61	83,630,200	27,804,539,406	1,036,484,822	90,274,479	3,365,210	3.7
1871	62	84,430,200	29,300,986,682	1,209,721,029	95,133,074	3,927,666	4.1
1872	61	84,430,200	32,636,997,404	1,213,293,827	105,964,277	3,939,266	3.7
1873	59	83,370,200	33,972,773,943	1,152,372,108	111,022,137	3,765,922	3.4
1874	59	81,635,200	20,850,681,963	971,231,281	68,139,484	3,173,958	4.7
1875	59	80,435,200	23,042,276,858	1,104,346,845	75,301,558	3,608,977	4.8
		†72,747,221	§413,404,866,992	§16,858,398,139	†61,102,416	†2,491,440	4.1

* The capital stock is stated at various dates, the amounts at a uniform date in each year not being attainable.
† Yearly averages for twenty-two years.
§ Totals for twenty-two years.

The amount of the coin and paper currency of a great nation is small in comparison with that of bank checks, certificates, and bills of exchange which are used as credit circulation. It has been said that they are simply the "small change;" and by an examination of this table it will be perceived how inconsiderable is the aggregate of currency used in comparison with that of bank-checks, and how small an amount is actually needed to settle the large daily transactions of business at the New York clearing-house.

A table will be found in the appendix, prepared by Mr. E. B. Elliott, of this Department, showing, for the period of thirteen years and nine months, from the close of the year 1861 to the 30th day of September, 1875, the average greenback-price of gold and the average gold-price of greenbacks, by months, quarter-years, half-years, and fiscal and calendar years, as derived from daily quotations of sales in open market in New York City. The chart accompanying the table exhibits the average currency-prices of gold and the average gold-prices of currency, by quarter-years, for the same period.

LOST OR UNREDEEMED BANK-NOTES.

Many exaggerated estimates have been made of the proportion of loss upon Treasury and bank notes which have been in actual circulation for a series of years. The amount of demand Treasury-notes issued from July 17, 1861, to December 31, 1862, was $60,000,000, in denominations of five, ten, and twenty dollars. The amount of these notes remaining outstanding on the 1st of November last was $69,707, the portion unredeemed being between one-eighth and one-ninth of one per cent. of the amount issued.

In the absence of sufficient data no reliable statement of similar losses arising from the circulation of bank-notes has ever been made. In order to ascertain as nearly as possible the proportion of loss upon such notes, the Comptroller applied to the superintendent of the bank-department of the State of New York for a statement of the amount of outstanding circulation of the banks of that State, at a period when it was greatest, and the amount remaining outstanding at the expiration of the six years' notice required to be given by the banks before they were by law relieved from the obligation to redeem them. Through the courtesy of the superintendent in transmitting a series of reports to the Comptroller, this Office has been enabled to prepare tables exhibiting the amount of notes which had been issued to the banks, and the amount remaining unredeemed at the expiration of the legal notice. Returns were in this way obtained from two hundred and eighty-six banks, either incorporated, or organized under the safety-fund or the free-banking systems of the State of New York. It was found that the maximum amount of circulation issued to them was $50,754,515, and that the total circulation still outstanding was $1,336,337, showing that the proportion of unredeemed circulation was 2.63 per cent. only of the amount issued.

Thirty of these banks still remain in operation in the city of New York, either as State or national institutions; and letters of inquiry from this Office, addressed to them during the month of October last, have elicited the following information: The maximum amount of circulation issued to them was $7,763,010; remaining unredeemed in October, 1875, $142,365; amount unredeemed in proportion to that issued, 1.83 per cent., as will be seen from the following table:

Name of bank.	Greatest circulation.		Now outstanding.	Percentage.
	Year.	Amount.		
American Exchange	1853	$400,000	$8,299	2.07
Bank of America	1861	121,570	1,200	.96
Bank of New York	1860	450,000	3,759	.83
Bank of North America	1860	98,712	3,838	3.88
Bank of the Republic	1859	293,130	3,500	1.19
Butchers and Drovers'	1854	375,000	3,226	.86
Chatham	1858	133,400	3,863	2.89
Chemical	1861	432,113	11,082	2.56
Citizens'	1860	185,841	5,218	2.80
East River	1864	120,830	5,045	4.17
Grocers'	1854	98,116	1,878	1.91
Importers and Traders'	1863	220,000	5,979	2.71
Irving	1862	100,000	2,000	2.00
Marine	1863	300,000	3,600	1.20
Market	1862	281,456	6,906	2.48
Mechanics'	1855	435,009	6,494	1.49
Mechanics' Banking Association	1860	121,590	1,300	1.06
Mechanics and Traders'	1864	227,513	4,042	1.77
Mercantile	1854	118,050	2,691	2.27
Merchants'	1863	387,097	2,349	.606
Merchants' Exchange	1863	149,964	2,798	1.86
Metropolitan	1863	570,000	19,170	3.36
New York County	1862	123,974	5,968	4.81
New York Exchange	1863	160,000	2,600	1.62
Park	1862	375,941	6,060	1.61
Phœnix	1861	147,230	1,659	1.12
St. Nicholas	1862	200,000	4,300	2.15
Shoe and Leather	1862	645,300	7,051	1.09
Tradesmen's	1854	300,000	5,000	1.66
Union	1862	241,174	1,400	.58
Totals		7,763,010	142,365	1.83

The statutes of the State of Wisconsin provide that a bank of issue, after eighty per cent. of its notes shall have been retired, may give notice for two years, in some newspaper of the county where it is established, that its circulating notes must be presented for redemption at the office

of the State comptroller within three years from the date of such first notice. After the expiration of that time the comptroller is authorized to surrender to the order of the bank any securities he may hold for the redemption of its notes.

From an examination of the official reports of the State superintendent, transmitted through the courtesy of the State comptroller, it is found that the greatest amount of circulation issued to two hundred and forty Wisconsin State banks was $7,565,409, and that the amount remaining unredeemed is $134,747; the proportion of outstanding or unredeemed notes being 1.78 per cent., only, of the amount issued.

The following table gives similar information as to the national banks which failed prior to the year 1870, from which it will be seen that the amount of circulation issued to them was $1,554,400, the amount outstanding on November 1, 1875, $21,653, and that the proportion of notes remaining unredeemed is only 1.39 per cent. of the total issue.

Name and location of bank.	Receiver appointed—	Circulation issued.	Circulation outstanding.	Percentage unredeemed.
First National Bank, Attica, N. Y	Apr. 14, 1865	$44,000	$484 00	1.10
Venango National Bank, Franklin, Pa	May 1, 1866	85,000	621 50	.73
Merchants' National Bank, Washington, D. C	May 8, 1866	180,000	2,316 00	1.28
First National Bank, Medina, N. Y	Mar. 13, 1867	40,000	468 25	1.17
Tennessee National Bank, Memphis, Tenn	Mar. 21, 1867	90,000	896 25	.99
First National Bank, Selma, Ala	Apr. 30, 1867	85,000	1,013 25	1.19
First National Bank, New Orleans, La	May 20, 1867	180,000	2,804 50	1.55
National Unadilla Bank, Unadilla, N. Y	Aug. 29, 1867	100,000	940 50	.94
Farmers and Citizens' National Bank, Brooklyn, N. Y.	Sept. 6, 1867	253,900	2,679 75	1.05
Croton National Bank, New York, N. Y	Oct. 1, 1867	180,000	1,476 25	.82
First National Bank, Bethel, Conn	Feb. 28, 1868	26,300	520 50	1.97
First National Bank, Keokuk, Iowa	Mar. 3, 1865	90,000	1,086 00	1.20
National Bank, Vicksburg, Miss	Apr. 24, 1868	25,500	481 25	1.88
First National Bank, Rockford, Ill	Mar. 15, 1869	45,000	1,042 00	2.31
First National Bank of Nevada, Austin, Nev	Oct. 14, 1869	129,700	4,823 50	3.71
		1,554,400	21,653 50	1.39

INSOLVENT BANKS.

Since my last annual report receivers have been appointed for five national banks, as follows:

Gibson County National Bank, Princeton, Indiana.
First National Bank of Utah, Salt Lake City, Utah.
Cook County National Bank, Chicago, Ill.
First National Bank of Tiffin, Ohio.
Charlottesville National Bank, Va.

During the year dividends have been declared as follows:

Merchants' National Bank, Washington, D. C., 10 per cent.
National Unadilla Bank, Unadilla, N. Y., $13\frac{3}{10}$ per cent; total, $45\frac{3}{10}$ per cent.
Scandinavian National Bank, Chicago, 15 per cent; total, 40 per cent.
Atlantic National Bank, New York, 15 per cent; total, 70 per cent.
First National Bank, Washington, D. C., 10 per cent; total, 60 per cent.
Merchants' National Bank, Petersburg, Va., 9 per cent; total, 24 per cent.
First National Bank, Mansfield, Ohio, 10 per cent; total, 35 per cent.
First National Bank, Norfolk, Va., 15 per cent; total, 35 per cent.
First National Bank of Rockford, Ill., $16\frac{2}{10}$ per cent; total, $41\frac{2}{10}$ per cent.
First National Bank of Carlisle, Pa., 15 per cent; total, 40 per cent.
First National Bank of Topeka, Kans., 15 per cent; total, 45 per cent.
Gibson County National Bank of Princeton, Ind., 40 per cent.
First National Bank of Utah, Salt Lake City, Utah, 15 per cent.
National Bank of the Commonwealth, City of New York, 20 per cent. to shareholders.
First National Bank of Fort Smith, Ark., 13 per cent. to shareholders.

The affairs of the National Unadilla Bank, New York, of the First National Bank of Fort Smith, Ark., and of the First National Bank of

Rockford, Ill., have been finally closed; and it is expected that during the next year those of the Ocean National Bank of New York City, the First National Bank of New Orleans, the First and Merchants' National Banks of Petersburgh, Va., the First National Bank of Washington, D. C., the Gibson County National Bank of Princeton, Ind., and of the Wallkill National Bank of Middletown, N. Y., will be finally closed.

Many of the claims against the Eighth National Bank of New York City have, during the past year, been assumed and liquidated by the stockholders of the bank in their individual capacity; and these liquidated claims have by them been turned over to this Office, in lieu of the payment of assessments, amounting to fifty-five per cent., made upon them as stockholders on account of such claims. The uncollected assets of the bank have also been sold by the receiver to the representative of the stockholders, under the order of the United States district court. On other claims against the association, for small amounts remaining outstanding, dividends have been declared in full. The creditors of the National Bank of the Commonwealth of New York City have been paid in full, and dividends amounting to twenty per cent. have, during the last year, been declared in favor of its shareholders. Dividends amounting to thirteen per cent. have also been declared in favor of the shareholders of the First National Bank of Fort Smith, Ark.

On account of a deficiency of assets, assessments have been directed to be made, under section 5151 of the Revised Statutes, upon the shareholders of the following-named banks: First National Bank, New Orleans; Crescent City National Bank, New Orleans; New Orleans National Banking Association; Atlantic National Bank, of New York City; Wallkill National Bank, Middletown, N. Y.; First National Bank, Washington, D. C.; First National Bank, Norfolk, Va.; First National Bank, Anderson, Ind., and the Scandinavian National Bank of Chicago, Ill.; and suits have been directed to be brought against their delinquent shareholders for the enforcement of their liability under the section named.

It is impossible to prevent delays in liquidating the affairs of insolvent banks when the stockholders of such institutions resist by litigation the enforcement of the personal-liability clause of the national-bank act. Every effort will in such cases be made to close up the affairs of the banks with the least possible expense to creditors and shareholders.

SECURITY OF CIR ULATING NOTES.

The following table exhibits the kinds and amounts of United States bonds held by the Treasurer on the 1st day of November, 1875, to secure the redemption of the circulating notes of national-banks:

Class of bonds.	Authorizing act.	Rate of interest.	Amount.
Loan of February, 1861, (81's)	February 8, 1861	6 per cent	$3, 675, 000
Loan of July and August, 1861, (81's)	July 17 and August 5, 1861	do	51, 059, 350
Loan of 1863, (81's)	March 3, 1863	do	28, 046, 700
Five-twenties of March, 1864	March 3, 1864	do	179, 000
Five-twenties of June, 1864	June 30, 1864	do	4, 656, 200
Five-twenties of 1865	March 3, 1865	do	8, 272, 700
Consols of 1865	do	do	6, 536, 650
Consols of 1867	do	do	10, 292, 100
Consols of 1868	do	do	2, 981, 000
Ten-forties of 1864	March 3, 1864	5 per cent	97, 974, 150
Funded loan of 1881	July 14, 1870, and January 20, 1871	do	141, 073, 050
Pacific Railway bonds	July 1, 1862, and July 2, 1864	6 per cent	12, 814, 512
Total			367, 549, 412

These securities consist of $128,503,212 of six per cent., and $239,046,200 of five per cent. bonds. The amount of six per cent. bonds now held is $17,478,438 less than on November 1, 1874, and the five per-cent. bonds have also been reduced $393,900 during the same period.

Since October 1, 1870, there has been an increase of five per cent. bonds, amounting to $143,103,650, and a decrease of six per cent. bonds of $118,388,088. Since October, 1865, the increase in five per cent. bonds has been $162,193,600, and the decrease of six per cent. bonds $147,747,338.

CLASSIFICATION OF STOCKS AND BONDS.

Below is a statement of the aggregate amounts of the various kinds of bonds, stocks, and mortgages, and the amount of real estate owned by the national banks of the United States on the 30th day of June, 1875:

United States bonds, par value		$402,028,100 00
Stocks and bonds of States	$3,105,143 56	
Stocks and bonds of cities	8,074,630 77	
Stocks and bonds of corporations	15,067,623 29	
Bonds of counties and towns	2,848,595 84	
Bonds and mortgages, on real estate	2,914,322 72	
		32,010,316 18
Real estate owned, including banking-house property		37,956,241 37
Total		471,994,657 55

RESERVE.

The following table exhibits, for October 1, of this year, the amount of reserve required to be held by the national banks under the act of June 20, 1874, (which repealed the requirement of reserve upon circulation;) the amount which would, at the same date, have been required by the previous law; the amount then actually held, classified so as to show the proportions in bank and with reserve and redeeming agents; and the amount of legal-tender reserve released under the operation of the act named.

Location of banks.	Total reserve required.		Reserve held.	Legal-tender reserve required.				Legal tender reserve released by act of June 20, 1874.	Classification of reserve held.		
				Act of June 20, 1874.			National-bank act.		Specie.	Other lawful money.	Due from agents.
	Act of June 20, 1874.	National-bank act.		In bank.	In the Treasury.	Total.					
	Millions.	*Millions.*	*Millions.*	*Millions.*	*Millions.*	*Millions.*	*Millions.*	*Millions.*	*Millions.*	*Millions.*	*Millions.*
States and Territories	$45.9	$80.3	$99.7	$13.7	$11.6	$25.3	$32.3	$7.0	$1.2	$45.3	$53.2
New York City	50.6	55.1	60.5	49.5	1.1	50.6	55.1	4.5	5.0	55.5	.....
Other reserve cities	55.1	72.2	73.8	25.7	3.6	29.3	36.1	6.8	0.8	40.7	32.3
Totals	151.6	207.6	234.0	88.9	16.3	105.2	123.5	18.3	7.0	141.5	85.5

An examination of the table shows that the national banks held on October 1, 1875, $26,400,000 more of reserve than would have been required prior to the act of June 20, 1874, and $82,400,000 more than is required under that act. The amount of cash-reserve held was $148,500,000, which sum exceeds by $25,000,000 the amount required prior to June 20, 1874, and is $43,300,000 greater than that required under the present act.

The following tables exhibit the amount of circulation and of net deposits, together with the reserve held by the national banks, at three periods in each year, from 1870 to the present time:

STATES AND TERRITORIES, EXCLUSIVE OF RESERVE CITIES.

Dates.	Number of banks.	Liabilities.			Reserve req'red.	Reserve held.	Ratio of reserve.	Classification of reserve.		
		Circulation.	Net deposits.	Total.				Specie.	Other lawful money.	Due from agents.
		Millions	*Millions*	*Millions*	*Millions*	*Millions*	*Per cent.*	*Millions*	*Millions*	*Millions*
March 24, 1870	1,397	$189.0	$216.1	$405.1	$60.8	$92.4	$22.8	$3.3	$39.0	$50.1
June 9, 1870	1,396	188.7	219.1	407.8	61.2	92.0	22.6	2.9	40.1	49.0
October 8, 1870	1,400	189.8	216.2	406.0	60.9	84.6	20.9	2.4	37.3	44.1
April 25, 1871	1,482	202.8	235.8	438.6	65.8	98.7	22.6	2.5	40.5	55.7
June 10, 1871	1,497	204.2	241.1	445.3	66.8	101.7	22.8	2.0	40.4	59.3
October 2, 1871	1,537	210.2	257.4	467.6	70.1	98.9	21.2	1.8	41.5	55.6
April 19, 1872	1,616	220.1	267.3	487.4	73.1	98.0	20.2	2.6	43.2	52.2
June 10, 1872	1,626	222.0	268.8	490.8	73.6	101.8	20.7	1.9	42.1	57.8
October 3, 1872	1,689	227.3	282.1	509.4	76.4	97.8	19.2	2.0	43.3	52.5
April 25, 1873	1,732	231.9	290.7	522.6	78.4	105.7	20.2	1.6	45.1	59.0
June 13, 1873	1,737	232.8	294.9	527.7	79.2	108.9	20.6	1.7	44.9	62.3
September 12, 1873	1,747	233.1	303.8	536.9	80.6	110.5	20.6	2.1	44.5	63.9
May 1, 1874	1,751	235.8	286.2	522.0	78.4	112.6	21.6	2.4	50.1	60.1
June 26, 1874	1,755	235.4	287.4	522.8	78.5	111.5	21.3	2.2	47.3	62.0
October 2, 1874	1,774	234.1	293.4	527.5	79.2	100.6	19.1	2.4	45.5	52.7
May 1, 1875	1,815	231.5	305.2	536.7	80.5	100.7	18.8	1.5	47.1	52.1
June 30, 1875	1,845	229.8	311.5	541.3	81.2	105.2	19.4	1.6	45.2	58.4
October 1, 1875	1,851	230.7	306.7	537.4	80.7	100.1	18.6	1.6	45.2	53.3

NEW YORK CITY.

		Millions	*Millions*	*Millions*	*Millions*	*Millions*	*Per cent.*	*Millions*	*Millions*	*Millions*
March 24, 1870	54	34.2	186.1	220.3	55.1	72.3	32.8	24.5	47.8	.....
June 9, 1870	54	33.5	189.9	223.4	55.9	72.4	32.4	18.8	53.6	.....
October 8, 1870	54	32.9	159.8	192.7	48.2	54.9	28.5	9.1	45.8	.....
April 29, 1871	54	31.8	195.1	226.9	56.7	65.7	29.0	11.9	53.8	.....
June 10, 1871	54	31.0	211.0	242.0	60.5	76.6	31.7	11.4	66.2	.....
October 2, 1871	54	30.6	191.3	221.9	55.5	59.2	26.7	8.7	50.5	.....
April 19, 1872	51	28.6	172.0	200.6	50.1	53.4	26.6	11.9	41.5	.....
June 10, 1872	51	28.3	196.9	225.2	56.3	65.6	29.1	15.2	50.4	.....
October 3, 1872	50	28.1	158.0	186.1	46.5	45.4	24.4	6.4	39.0	.....
April 25, 1873	49	28.0	163.6	191.6	47.9	47.3	24.7	13.1	34.2	.....
June 13, 1873	49	27.7	186.5	214.2	53.6	64.4	30.1	23.6	40.8	.....
September 12, 1873	48	28.2	172.0	200.2	50.0	46.9	23.4	14.6	32.3	.....
May 1, 1874	48	27.2	207.6	234.8	58.7	71.3	30.4	25.0	46.3	.....
June 26, 1874	48	26.2	206.4	232.6	58.1	71.8	30.9	15.5	56.3	.....
October 2, 1874	48	25.3	204.6	229.9	57.5	68.3	29.7	14.4	53.9	.....
May 1, 1875	48	21.0	197.5	218.5	54.6	57.8	26.6	6.7	51.1	.....
June 30, 1875	48	19.2	218.4	237.6	59.4	76.6	32.2	13.7	62.9	.....
October 1, 1875	48	18.3	202.3	220.6	55.1	60.5	27.4	5.0	55.5	.....

OTHER RESERVE CITIES.

		Millions	*Millions*	*Millions*	*Millions*	*Millions*	*Per cent.*	*Millions*	*Millions*	*Millions*
March 24, 1870	164	69.3	156.4	225.7	56.4	70.9	31.4	8.2	39.4	23.3
June 9, 1870	162	69.0	168.1	237.1	59.3	75.3	31.8	5.4	44.3	25.6
October 8, 1870	161	69.1	147.6	216.7	54.2	63.7	29.4	3.0	38.5	22.2
April 29, 1871	171	71.6	179.6	251.2	62.8	79.1	31.5	3.9	45.8	29.4
June 10, 1871	172	72.5	189.9	262.4	65.6	83.1	31.7	2.8	47.2	33.1
October 2, 1871	176	74.6	188.1	262.7	65.7	73.3	28.7	1.5	42.6	31.2
April 19, 1872	176	76.6	183.9	260.5	65.1	71.4	27.4	5.1	36.4	29.9
June 10, 1872	176	76.8	198.1	274.9	68.7	79.1	28.8	2.8	42.6	33.7
October 3, 1872	180	78.1	179.6	257.7	64.4	66.8	25.9	1.9	36.7	28.2
April 25, 1873	181	78.2	196.0	274.2	68.6	72.4	26.4	2.2	40.4	29.8
June 13, 1873	182	78.2	210.5	288.7	72.2	80.8	28.0	2.7	43.2	34.9
September 12, 1873	181	77.8	197.5	275.3	68.8	71.8	26.1	3.2	36.3	32.3
May 1, 1874	179	77.3	210.9	288.2	72.1	84.2	29.2	5.1	45.4	33.7
June 26, 1874	180	76.9	219.1	296.0	74.0	87.4	29.5	4.5	47.4	35.5
October 2, 1874	182	73.1	218.5	293.1	73.3	76.0	25.9	4.5	40.4	31.1
May 1, 1875	183	70.8	217.9	288.7	72.2	72.0	25.0	2.4	41.1	28.5
June 30, 1875	183	69.1	225.5	294.6	73.7	72.0	26.4	3.7	43.0	31.3
October 1, 1875	188	69.4	222.9	292.3	73.1	74.5	25.5	1.5	40.7	32.3

SUMMARY.

Dates.	Number of banks.	Liabilities.			Reserve required.	Reserve held.	Ratio of reserve.	Classification of reserve.		
		Classification.	Net deposits.	Total.				Specie.	Other lawful money.	Due from agents.
		Millions	*Millions*	*Millions*	*Millions*	*Millions*	*Per cent.*	*Millions*	*Millions*	*Millions*
March 24, 1870	1,615	$292.5	$558.6	$851.1	$172.3	$235.5	27.7	$86.0	$126.1	$73.4
June 9, 1870	1,612	291.2	577.2	868.4	176.3	239.8	27.6	27.1	138.1	74.6
October 8, 1870	1,615	291.8	523.5	815.3	163.8	203.4	24.9	14.5	122.6	66.3
April 29, 1871	1,707	306.1	610.5	916.6	185.3	243.5	26.6	18.3	140.1	85.1
June 10, 1871	1,723	307.8	641.9	949.7	192.9	261.4	27.5	16.2	152.8	92.4
October 2, 1871	1,767	315.5	636.7	952.2	191.3	233.4	24.5	12.0	134.5	86.9
April 19, 1872	1,843	325.3	623.2	948.5	188.4	222.9	23.5	19.6	121.2	82.1
June 10, 1872	1,853	327.1	663.8	990.9	198.6	246.5	24.9	20.0	134.9	91.6
October 3, 1872	1,919	333.5	619.8	953.3	187.4	209.9	22.1	10.2	119.0	80.7
April 25, 1873	1,962	338.1	650.3	988.4	194.9	225.4	22.8	16.9	119.7	88.8
June 13, 1873	1,968	338.8	691.9	1,030.7	204.9	254.1	24.7	22.0	129.0	97.1
September 12, 1873	1,976	339.1	673.3	1,012.4	199.5	229.1	22.6	19.9	113.1	96.1
May 1, 1874	1,978	340.3	704.7	1,045.0	209.1	268.1	25.7	32.5	141.8	93.8
June 26, 1874	1,963	338.5	713.0	1,051.5	210.6	270.7	25.7	22.3	150.9	97.5
October 2, 1874	2,004	332.5	716.5	1,050.5	210.0	244.9	23.3	21.3	139.8	83.8
May 1, 1875	2,046	323.3	720.6	1,043.9	207.3	230.5	22.1	10.6	139.3	80.6
June 30, 1875	2,076	318.1	755.4	1,073.5	214.3	259.8	24.2	19.0	151.1	89.7
October 1, 1875	2,087	318.4	731.9	1,050.3	208.9	235.1	22.4	8.1	141.4	85.6

USURY.

An important decision has recently been made by the Supreme Court of the United States in the case of The Farmers and Mechanics' National Bank of Buffalo *vs.* Dearing, upon the subject of usury, in which the following points have been determined:

1. That when a national bank makes a loan at a usurious rate of interest it can recover only the amount actually loaned, all interest being forfeited.

2. That when a national bank has received payment of a usurious loan, the party paying such usury may, if he bring his action within two years from the date of the loan, recover from the bank twice the amount of all interest paid on such transaction.

3. That the penalties for usurious transactions or agreements made by national banks are restricted to those imposed by the Revised Statutes of the United States, which are paramount to the penalties prescribed for similar offenses by the laws of the several States and Territories.

The Comptroller is frequently solicited to bring suits, under the authority of section 5239 of the Revised Statutes, for the forfeiture of the rights, privileges and franchises of national banks, on account of usurious transactions. In a previous report this subject was referred to as follows:

Charges have been made against several national banks during the past year for receiving usurious rates of interest. These complaints have been made not only against banks in the South and West, where high rates of interest prevail, but also against banks organized in other States, where the usurious rate charged was but slightly in excess of the rate of six per cent. allowed by law. Section 30 of the act provides that when the amount of interest charged is greater than the rate authorized by State law, twice the interest paid may be recovered by the person paying the same; while section 53 provides that the franchises of an association may be forfeited if the directors of a bank knowingly violate the provisions of the act. The original national-currency act of February 11, 1863, provided as a penalty for usury the forfeiture of the debt, and section 50 of the same act also subjected the rights, privileges, and franchises of an association to forfeiture for willful violations of the act. It may be doubted, therefore, whether Congress intended to impose a specific penalty involving the loss of

the whole debt, and then, in addition, subject the same bank to a forfeiture of charter in a subsequent section, which is applicable to other violations of law. I am informed by gentlemen who participated in the framing of the present national-currency act that the forfeiture of twice the amount of interest was regarded as a sufficient penalty for such violations of law, and, at the same time, a sufficient protection to borrowers.

These statements are confirmed by the act of April 22, 1870, "An act to amend the usury laws of the District of Columbia," which provides "that if any person or corporation in this District shall contract to receive a greater rate of interest than ten per cent. upon any contract in writing, or six per cent. upon any verbal contract, such person or corporation shall forfeit the whole of said interest so contracted to be received, and shall be entitled only to recover the principal sum due to such person or corporation." It will be observed that the forfeiture of the interest is the only penalty prescribed by Congress, nearly six years after the passage of the national-currency act, for corporations and individuals in the District of Columbia.

The rates of interest fixed by State laws are not governed by any sound economical or business principles. In three of the New England States usury laws are abolished, while in the remainder the rate has remained for half a century at a uniform standard, which is less than the present rate of the Bank of England. In Minnesota and Virginia the rate is limited to twelve per cent.; in Illinois, Wisconsin, and Missouri, to ten per cent.; in Alabama and Ohio, to eight per cent.; while in Pennsylvania, Maryland, and Kentucky the rate is fixed at six per cent. In New York, the taking of an excess beyond the limit of seven per cent. forfeits the whole debt, and subjects the creditor to fine and imprisonment. It would be difficult to give any good reason why the rate of interest should be limited to ten per cent. in the city of Washington, to six per cent. in the neighboring cities of Philadelphia, Baltimore, Wilmington, and Raleigh, and to twelve per cent. across the Potomac, in Alexandria, and in the capital of Virginia. Many of the States have practically repealed their usury laws, while other neighboring States retain upon their statute-books laws which are so continually evaded that they have become obsolete. Savings-banks chartered by Congress, savings-banks, trust-companies, and safe-deposit companies authorized by the legislatures of almost every State of the Union, as well as private bankers, offer for interest on deposits rates nearly equal, and sometimes exceeding, the ruling rates allowed by law; and under such circumstances it is difficult to control by legislation the rates of the national banks.

Self-protection stimulates even the most conservative banks to control their own business and retain the accounts of dealers of long standing. The rates of interest charged must correspond in some degree to the supply of money and to the demand. If high rates are paid for deposits, it is with the expectation that the borrower will pay a rate correspondingly high. Hence loans are made to those dealers who will leave the largest proportion of the amount borrowed with the bank for the longest period in the guise of deposits. Banks in New York charge seven per cent., in Philadelphia and Baltimore six per cent.; but their loans are made chiefly to dealers whose average accounts show balances continually on hand equal to one-eighth or one-fourth of the amount borrowed; while the banks in the South and the West not unfrequently charge the ruling rate without regard to the account of the customer. The expedients for violating the usury laws are so numerous, that it may well be doubted whether it would not be better for all parties to allow the rate charged to be regulated by the state of the money-market. Under existing laws, in an easy money-market, the rate not unfrequently falls below that prescribed by law. If money is scarce, the rate is nominally within the limit, but really regulated in accordance with a previous understanding between borrower and lender.

There are no usury laws in Great Britain or in the other commercial European states; and the commonwealth of Massachusetts, one of the most prosperous and enlightened States of the Union, has recently abolished such laws; and it will be found, by reference to the table on a preceding page, that the earnings of the banks in that State for the four years since the passage of the act have been even less than in many of the Eastern, Middle, and Southern States, where the rate is fixed at six per cent.

Mr. McCulloch, late Secretary of the Treasury, in his first report as Comptroller of the Currency, recommended a uniform rate of interest, and expressed the opinion that Congress possessed the power to enact such a law under the constitutional provision of regulating commerce among the several States. Congress alone has the power to coin money and regulate the value thereof; and if it alone has authority to issue and authenticate the paper-currency of the country, there would seem to be no good reason why it should not also provide for its free circulation, which is now impeded by the ever-changing statutes of forty different legislatures.

The penalty for usury should at least be defined, and until this is done the Comptroller will not feel himself called upon to institute proceedings for forfeiture of the charter of a bank for usurious transactions, when it is evident that the business of the association is conducted legitimately and safely in other respects.

COUNTERFEITS.

, Since the passage of the act of June 20, 1874, $219,336,440 of national-bank notes have been received, assorted, and counted in the Office of the Treasurer, a large proportion of which has also passed through the hands of experts in this Office. This amount nearly equals two-thirds of the present total national-bank circulation. The Treasurer informs me that in counting and assorting this large amount of currency only five hundred and twenty counterfeit notes of all denominations have been discovered; of which two hundred and five were twos, one hundred and thirty-eight fives, one hundred and twenty tens, fifty-two twenties, and five one-hundreds; amounting, in all, to $3,840.*

The only well-executed counterfeits of national-bank notes of the denomination of five dollars, that have been discovered, are upon five of the national banks in Illinois, namely: The First and Traders' National Banks of Chicago, The First National Bank of Paxton, The First National Bank of Canton, and The First National Bank of Aurora. The amount of notes of this denomination which has been issued to the four banks first named is $433,700, about three-fourths of which has been withdrawn from circulation. Circulars have recently been addressed to all of the national banks, and to the postmasters of the country, requesting the return to the Treasury of all genuine five-dollar notes of these banks coming into their possession; and it is expected that during the present year very nearly the whole of such issues will be retired. Experience has shown that the prompt retirement of the genuine notes of any denomination which has been successfully imitated is the most effectual means of preventing the circulation of their counterfeits. The Comptroller has also the satisfaction of stating that the Treasury detective force has recently captured the plate from which all of the counterfeit five-dollar notes before referred to have been printed, and no further issue of these spurious notes is apprehended.

It is believed, as stated in my former reports, that the large amount of engraver's work, both upon the faces and the backs of the national-bank notes, together with the similitude of the designs, has tended to prevent their being successfully counterfeited; and it seems certain that

* The following table, showing the number and amount of counterfeit notes of the Bank of England presented to that bank during various periods from 1806 to 1874, has been compiled from a statement presented in July last by the deputy governor of the bank to a select committee of the House of Commons, and printed in the London Bankers' Magazine for October, 1875:

Period.	Total number and amount.			Average for each year.		
	Notes.	Amounts.		Notes.	Amounts.	
From 1806 to 1810	23,561	£38,903	$189,321	4,712	£7,781	$37,866
From 1811 to 1820	200,149	260,949	1,269,908	20,015	26,095	126,991
From 1821 to 1830	32,127	49,496	240,872	3,213	4,950	24,087
From 1831 to 1839	2,841	10,528	51,235	316	1,170	5,694
From 1840 to 1843	1,032	2,754	13,402	258	688	3,348
From 1844 to 1850	1,734	7,632	37,141	248	1,090	5,304
From 1851 to 1860	4,194	21,082	102,596	419	2,108	10,259
From 1861 to 1870	1,585	5,697	27,724	158	570	2,772
From 1871 to 1874	300	2,032	9,889	75	508	2,472
Totals	267,523	399,073	1,942,088	3,877	5,784	28,148

The amount of circulation of the Bank of England on November 3, 1875, was £37,905,215, or $184,465,728.80. (London Economist, November 6, 1875.)

a new issue of national-bank notes, differing in design from that now in use, will have the effect to increase the number of counterfeits. The objection urged against the present design is that it prevents the fiber in the paper now used from being readily seen; and to meet this objection the Comptroller suggests that a more simple design be substituted for the large central vignette upon the backs of the notes, which can be done with but little expense, thus leaving the fiber of the paper more clearly visible.

BANK-NOTE PLATES.

The sundry civil appropriation bill, approved March 3, 1875, after making appropriations for paper and the expenses of printing the national-bank notes, and for expenses of engraving and printing the notes, bonds, and other securities of the United States, provides that "the above-named notes, currency, and other securities of the United States shall be executed with not less than three plate printings; and that the Secretary of the Treasury shall have executed one or two of such printings by such responsible, capable, and experienced bank-note companies or bank-note engravers as may contract for the same at the lowest cost to the government, and at prices not greater than those heretofore paid for the same class of work; no company or establishment executing more than one printing upon the same note or obligation, and the final printing and finishing to be executed in the Treasury Department."

Under this provision the Secretary of the Treasury, in the month of August last, decided to have the final printing of the national-bank notes (the printing of their faces) executed at the Bureau of Engraving and Printing of the Treasury Department; and, in order to accomplish this purpose, the material used in printing this portion of the notes, consisting of 6,168 face-plates, 4,565 rolls, and 4,730 dies, has been transferred from the custody of the Comptroller of the Currency, by whom they were held, as provided in section 5113 of the Revised Statutes, to that of the Secretary of the Treasury. In addition to the material mentioned, 831 back-plates, 172 rolls, and 98 dies were similarly transferred. Since then all notes issued have been printed upon the distinctive or special paper heretofore used in printing the legal-tender notes, and the words "Series of 1875," as also the signature of the present Treasurer of the United States, have been imprinted upon their face.

An examination of the plates, dies, bed-pieces and other material from which the national-bank circulation is printed, has been completed, in whole or in part, and a schedule of the same has been filed in this Office as required by section 5174 of the Revised Statues. A large amount of material, also, which had been used in printing the notes of associations which are in liquidation, has been destroyed in the presence of three witnesses, appointed, respectively, by the Secretary of the Treasury, the Comptroller of the Currency, and by the bank-note companies who were at the time in possession of such material.

Other similar material, recently transferred to the custody of the Secretary, has also been destroyed in the presence of witnesses appointed by the Secretary and the Comptroller. The examination of this large amount of material and its transfer to Washington has occupied two months' time; and this, together with the alterations in the plates referred to, has caused considerable delay in furnishing to this Office unsigned circulating-notes for issue to the banks. It is expected that these alterations will be so far completed by the month of January next that circulating-notes will thereafter be delivered with the usual promptness.

STATE AND SAVINGS BANKS, AND TRUST AND LOAN COMPANIES.

As required by section three hundred and thirty-three of the Revised Statutes, the Comptroller presents herewith the condition of these monetary institutions, so far as obtained, for the year 1874–'75.

Savings-banks.

The returns received from the six New England States, and from New York and New Jersey, are, apparently, as complete and correct as the State authorities could make them. Those from California, compiled by the San Francisco Herald, also bear evidence of accuracy and completeness. From Pennsylvania only five savings-banks (four in Philadelphia and one in Pittsburgh) have furnished reports. The four Philadelphia banks report their aggregate assets at $15,374,775; the Dollar Savings-Bank of Pittsburgh at $4,140,137. Maryland returns six savings-banks—five in Baltimore, having assets of $18,933.448, and one in Frederick, with assets of $113,570. Minnesota returns three; aggregate assets, $119.163. Indiana, which reported six savings-banks on January 1, 1874, will not furnish returns for the present year until January next.

In the tabular statements of several of the States it will be observed that certain amounts have been added for the purpose of balancing. These forced balances, made in this Office, will be found in the item of "other investments" when the total resources fall short, and in "other liabilities" when the deficit is on the credit side of the account. An instance of this kind occurs in the savings-bank statement for Massachusetts, and the missing sum of $593,285 in the aggregate resources has been added to "other investments." Last year it was found necessary to add $902,790 to "other liabilities" in order to balance the statement. The State commissioner of savings-banks furnishes no correction or explanation of these apparent errors in the "aggregates" which he supplies; and it has been found utterly impossible to derive any satisfactory explanation from the reports of the individual banks embraced in his last annual report. His suggestion, in this last report, that "the banks be required to furnish a statement of their condition, in the form of *a trial-balance* of their accounts," intimates plainly that the primary fault is in the law of the State, which does not require sufficiently explicit returns to be made by the banks.

The item of "expenses" in the tables is extremely defective, many of the returns giving none whatever; and in a considerable number of the reports, United States bonds are not distinguished from other bonds and stocks, nor is the separation of the amount of "loans on real estate" from that of "loans on personal and collateral security" always observed.

The present year furnishes savings-banks reports (complete and partial) from twelve States, ten of which appeared in my last annual report. Returns from three other States are now given for the first time, while from one that was reported by me last year no returns have been received. A comparison of the aggregates for the purpose of exhibiting their differences would therefore be useless; but the six New England States, together with New York, New Jersey, and California, admit of instructive comparison.

Their principal items stand thus:*

States.	Aggregate deposits.		Number of depositors.		Average to each.	
	1873–'74.	1874–'75.	1873–'74.	1874–'75.	1873–'74.	1874–'75.
New England	$381,207,058	$405,838,925	1,170,434	1,223,441	$323 19	$331 72
New York	285,520,085	303,935,649	839,472	872,498	340 12	348 35
New Jersey	29,029,588	30,954,877	89,715	93,800	330 23	330 00
California	67,691,097	72,569,103	77,910	91 993	807 76	789 36

State banks.

In the tables of the appendix, banking institutions having capital stock, though calling themselves savings-banks, are included with State banks; and in several cases where but one true savings-bank is found in the report of a State, it, also, has been combined with the banks of discount and deposit of that State, to avoid the necessity of additional tables.

The tables representing this class of banks are compiled from the returns of 551 institutions, situated in twenty-four States and the District of Columbia; none having been received from the Territories. Their aggregate loans and discounts are $176,308,949, and their investments in bonds and stocks amount to $24,012,934. Of this last amount the item of "investments in United States bonds" is, for the reasons stated, inaccurate, and considerably below the true figures. The items of "other investments," "undivided profits," and "surplus," though correct in the aggregate cannot be relied upon individually. The total resources are stated to be $272,338,996. In a few unimportant instances only has it been necessary to force a balance in the tables.

The statement of the banks of Ohio, here given, was furnished by its Secretary of State. The amounts are apparently averages, returned to the auditors of eighty-eight counties for purposes of State taxation. They are without dates, but were collected in the months of September and October of this year. The number of banks assigned to Ohio is therefore an estimate only, and it has been found necessary to add the sum of $720,651 to "liabilities" in the statement, in order to balance it.

The report of the nine banks in Chicago is taken from the *Inter-Ocean*. There were no others obtainable from the State of Illinois.

West Virginia making returns of ten banks; Maryland, sixteen; Ohio, one hundred and five (estimated); New Orleans, five; Arkansas, one; and Texas, five; are now given for the first time. Missouri, which was returned last year, could not be obtained for the present report.

Trust and loan companies.

Reports from thirty-five of these institutions, situated in New York, Massachusetts, Connecticut, Rhode Island, and Philadelphia, have been obtained, and are separately tabulated in the appendix.

The aggregate capital of these is $21,854,020; their deposits, $85,025,371; loans, $65,900,174; investments in bonds, stocks, and mort-

* From official reports made to Parliament it is found that the amount due to depositors (including accrued interest) by the old savings-banks, and the post-office savings-banks of the United Kingdom of Great Britain and Ireland, was, at the close of the year 1874, $314,495,807. The number of open accounts was 3,132,293, making an average of $100.40 *per capita*. This shows a vast difference in the average of each depositor as compared with those of this country; but there is probably a great difference, also, in the character of the deposits. Those of Great Britain are, in the main, actual savings, while great numbers of the American savings-banks do a considerable amount of commercial business.

gages, of all kinds, $39,409,904; cash and cash items, $9,019,016; and their total resources are $122,890,175. Several of these companies state that they hold very large values, amounting to many millions, in trust, which are not the property of the companies, and are not, therefore, returned by them as deposits proper. The reports of the trust companies for New York, Massachusetts, Connecticut, and Rhode Island are furnished by their respective State superintendents of banking institutions. Those of Philadelphia were obtained by direct applications made to their proper officers, who cordially and promptly responded to the requests of this Office, although they expressed doubt whether they could be properly classed as banking institutions.

Explanatory.

Early in this year, at the time thought most appropriate for obtaining the latest reports, the Comptroller addressed letters to the governors, and to the bank superintendents of all the States having such an officer, asking for returns of the banking institutions of their respective States. The only available reports which have been received in answer to these applications will be found in the appendix. During the summer and autumn he again applied for the required information to the officers of nearly one hundred and fifty banking companies in the States from which no authentic reports had been received.

The Comptroller takes pleasure in acknowledging the courtesy of a large number of these gentlemen; but when the results of all these inquiries are examined, it will be seen how neglectful are the constituted authorities in respect to the monetary institutions of their respective States.

The returns of 1,260 of the State banks, trust companies, and savings-banks in the United States show more than eleven hundred millions of dollars of deposits; seven hundred and seventy-five millions of loans and discounts; ninety-one millions of capital stock; sixty-nine millions of surplus funds and undivided profits, and a grand total of nearly thirteen hundred millions of resources, balanced by an equal amount of liabilities. How much beyond these sums remains unreported to this Office must be left to the estimates or conjectures of experts in finance.

To understand the difficulties encountered by the Comptroller in collecting the statistics of the banks under consideration, it is sufficient only to instance the fact that many of the States do not, by law, require these institutions to report their condition to any of the State authorities. To his inquiries, several of the governors replied, "We have no such information;" and others added, "and we don't know where it is to be had." Some of the States require returns of those items only which they subject to taxation for State purposes, which are generally the capital stock and deposits of the banks; and even where full returns are required, they are usually averages for periods that vary in length and terminal dates.

Among the States from which either no reports were received, or such, only, as could not be utilized, are the great States of Illinois, Ohio, Virginia, Louisiana, Missouri, and many others. Of the thirty-seven States in the Union, the Comptroller has been able to obtain reports of banks of discount and deposit from twenty-four only, and of the ten Territories, returns have been received from the District of Columbia alone. Many of these reports are manifestly defective. He has also obtained reports of savings-banks from but twelve States and parts of States, and of trust and loan companies from four States and one city.

One other source of information, which supplies some of the deficiencies mentioned, is found in the returns made to the Commissioner of Internal Revenue for purposes of taxation. From the reports obtained by the Comptroller and from these returns the following table has been prepared, showing the number of State and savings banks and of trust companies, and the amount of their deposits at various dates in 1874–'75, together with the number of banks and private bankers, and their average deposits for June, 1873, and May, 1875, as returned to the Commissioner. The table also shows the average amount of capital in May, 1875, and the taxable capital and deposits for the six months ending May 31, 1875, as reported to him. The total average deposits for November, 1873, is also given in a note.

States and Territories.	From reports obtained by the Comptroller at various dates in 1875.		From returns made to the Commissioner of Internal Revenue.				
			June, 1873.	May, 1875.		Six months ending May 31, 1875.	
	Banks.	Deposits.	Average deposits.	Average deposits.	Average capital.	Banks and bankers.	Taxable capital and deposits.
Alabama	.....	.....	$1,667,219	$1,800,847	$955,000	22	$2,864,640
Arkansas	1	$78,946	316,338	184,804	175,275	15	389,408
California	25	72,569,103	66,186,456	99,640,319	19,941,282	112	80,500,652
Colorado	.....	.....	305,992	914,054	165,145	28	1,210,902
Connecticut	100	78,519,318	66,124,918	77,467,290	2,399,010	106	22,321,012
Dakota	.....	.....	67,628	96,650	11,000	8	129,152
Delaware	2	252,479	1,543,785	1,385,129	470,562	9	1,274,000
Dist. of Columbia	5	1,024,001	8,666,579	3,814,703	495,456	16	2,992,000
Florida	.....	.....	154,277	237,265	42,000	9	254,400
Georgia	.....	.....	3,204,509	3,965,978	4,104,257	69	9,170,928
Idaho	.....	.....	16,854	56,853	102,000	4	148,000
Illinois	9	9,602,165	33,544,797	35,629,942	10,163,398	329	36,125,944
Indiana	9	751,324	10,968,885	12,161,278	5,402,258	143	14,671,704
Iowa	40	3,757,338	6,446,114	11,957,458	3,330,976	210	11,501,548
Kansas	19	966,119	2,935,323	2,253,757	1,344,131	93	3,853,484
Kentucky	.....	.....	12,688,659	12,200,901	9,709,965	93	25,720,252
Louisiana	5	6,149,202	7,370,620	7,723,206	4,039,720	27	10,028,648
Maine	61	29,718,430	27,253,684	29,697,569	2,140,138	66	4,327,220
Maryland	23	22,567,308	21,567,758	24,260,491	4,447,838	58	12,155,636
Massachusetts	184	224,376,429	200,663,465	238,238,794	3,974,342	243	15,077,532
Michigan	26	7,408,055	11,004,407	10,547,674	3,159,048	151	13,874,364
Minnesota	11	944,264	1,675,182	1,872,648	1,091,111	57	2,819,160
Mississippi	.....	.....	1,473,019	1,261,665	808,919	22	2,285,364
Missouri	.....	.....	35,720,025	35,723,844	9,226,683	210	48,192,328
Montana	.....	.....	68,835	80,201	76,750	4	174,800
Nebraska	.....	.....	946,368	1,060,736	321,719	32	1,316,888
Nevada	.....	.....	1,178,148	2,086,974	195,980	12	2,587,480
New Hampshire	69	30,227,492	29,037,827	23,558,567	749,014	67	4,883,144
New Jersey	52	35,077,089	35,203,844	34,408,873	1,827,170	70	15,274,688
New Mexico	.....	.....	.....	16,841	.....	3	23,752
New York	253	416,106,226	425,847,438	440,775,402	64,823,359	848	219,554,096
North Carolina	.....	.....	1,505,944	1,552,466	621,408	19	2,246,020
Ohio	105	21,535,202	36,623,163	39,988,035	7,687,538	300	40,053,768
Oregon	.....	.....	784,356	1,236,848	490,455	8	1,874,000
Pennsylvania	133	66,222,831	102,957,949	96,717,293	21,537,699	485	105,322,116
Rhode Island	53	52,244,723	41,904,489	53,127,962	3,939,263	60	21,818,528
South Carolina	.....	.....	1,171,628	1,224,076	1,069,550	17	2,494,776
Tennessee	.....	.....	3,127,673	2,916,792	875,147	26	3,869,016
Texas	5	436,632	2,869,837	4,153,263	2,947,182	95	7,235,372
Utah	.....	.....	493,224	517,819	60,000	7	677,020
Vermont	18	7,594,732	4,865,998	10,007,254	90,000	20	2,197,792
Virginia	19	3,057,798	8,088,175	7,248,461	2,869,524	80	10,247,228
Washington	.....	.....	123,956	157,612	114,946	4	334,000
West Virginia	10	1,946,715	2,290,556	3,113,178	745,783	22	4,062,876
Wisconsin	23	6,909,215	8,396,392	8,929,797	1,563,597	93	12,259,940
Wyoming	.....	.....	42,371	43,154	10,500	3	98,408
Totals	1,269	1,100,042,436	1,229,094,504	1,346,014,813	200,316,098	4,375	780,494,076

NOTE.—The amount of the average deposits for the month of November, 1873, as reported to the Commissioner of Internal Revenue, was $1,160,861,826.

This table affords all the additional information at the command of this Office in reference to the number, deposits, and capital of State banks and private bankers of the country.

Three hundred and twenty-nine banks and bankers in Illinois return to the Commissioner $35,629,942 of deposits, two hundred and ten in Missouri, $35,723,844, and ninety-three in Kentucky, $12,200,901; from none of which could returns be obtained from any State officials. The savings-banks of California, twenty-five in number, hold $72,509,103 of deposits, while these, with eighty-seven other institutions and private bankers, return to the Commissioner $99,640,319; indicating that the total amount of deposits in California, outside of the national banks and the savings-banks, is but $27,131,206. By a similar comparison it will be found that five hundred and ninety-five private bankers in the State of New York held but $24,669,176 of deposits, while two hundred and fifty-three State and savings-banks and trust companies held $416,106,226. Other comparative results of corresponding character may be deduced from the table.

Unfortunately for a useful comparison of summaries, the Commissioner's report embraces the returns of private bankers and brokers, and does not distinguish them, in numbers or amounts, from the incorporated or legally-authorized banks to which the Comptroller's inquiries are restricted.

The total number of banks and private bankers reporting to his Office is 4,375, while the banks represented in the reports obtained by this Office number but 1,260; the Commissioner's summary of the deposits held in May, 1875, is put at $1,346,000,000, while the aggregate reported to the Comptroller for various dates in 1874-'75 is $1,100,000,000—the number of the banks and bankers in one statement exceeding by 3,115 that of the banks, trust companies, and savings-banks in the other, while their deposits are but $246,000,000 greater in amount.

Information in regard to these institutions, approximating to accuracy and completeness, can be obtained only through improved State legislation. Much that is promising of good results has already been done by exciting attention and endeavor in this direction. Appropriate bills were reported last winter in the legislatures of Illinois and Virginia, but were not passed. In these States, and elsewhere, the subject is undergoing what may be regarded as preliminary consideration. In several of the States, laws more or less effective are now in operation; and it is deserving of notice that New York has enacted a law with respect to her savings-banks far more exacting and restrictive than are the legal restrictions imposed upon the national banks; thus conforming to a provision in the State constitution which was recently ratified by popular vote. It is a truth, not universally recognized, that concealment is not among the vested rights of chartered money corporations; but it is safe to say that the soundest of them regard publicity of their affairs to be a measure of safety to themselves and a duty to the public.

AMENDMENTS.

The following amendments of the national-bank act are recommended.

1. An amendment authorizing the Comptroller to appoint receivers of national banks, whether transacting business or in liquidation, when insolvency shall become evident from the protest of drafts or of checks drawn upon such associations, or otherwise, if, after due examination,

it shall appear that the assets are insufficient for the liquidation of existing indebtedness.

2. Authorizing the appointment of a receiver when the charter of a bank shall be determined and adjudged forfeited by a United States court before which suit is brought, as provided in section 5239 of the Revised Statutes.

3. Providing that after full payment shall have been made of all the debts of an association, an agent may be appointed by the shareholders of the bank, for the purpose of liquidating its affairs; and thereupon discharging the Comptroller and receiver, by virtue of such legislation, from all further responsibilities.

4. For the investment of the funds of insolvent banks, on deposit with the Treasurer, in interest-bearing securities of the United States, when dividends are delayed by reason of protracted litigation.

5. Providing that if any shareholder or shareholders of banks, whose capital stock is impaired, shall refuse, after three months' notice, to pay his or their assessments, as provided in section 5205 of the Revised Statutes, a sufficient amount of the capital stock of such delinquent shareholder or shareholders shall be sold to make good the deficiency.

6. An amendment of section 5200 of the Revised Statutes extending the limit of liability of any association, person, company, or firm, for money borrowed, from one-tenth of the capital paid in, to fifteen per cent. of capital and surplus for banks located in the reserve cities, and to one-tenth of capital and surplus for other banks.

7. Prohibiting the deposit of more than ten per cent. of the capital of a national bank with any private banker, or with any person or association other than a national banking association.

8. That no national bank shall be liable to make good any deficiency which may hereafter arise in any special deposit made with such bank, unless there shall be produced by the owner of such deposit a receipt in which the liability of the bank shall be distinctly stated.

9. The repeal of the two-cent stamp-tax upon bank-checks.

10. Requiring the word "counterfeit," or "altered," or "illegal," to be stamped on all counterfeit or unauthorized issues.

11. The repeal of that portion of section 4 of the act of June 17, 1870, which provides for the organization of savings-banks in the District of Columbia.

Many of these proposed amendments were incorporated into a bill reported from the Committee on Banking and Currency during the last session of Congress, but no final action was reached upon them.

* * * * * * *

APPENDIX.

Special attention is called to the carefully-prepared tables contained in the report and the appendix, showing the number of banks organized and closed, with their capital, bonds deposited and circulation, the resources and liabilities of the banks from their organization to the present time, their resources, dividends and earnings, the amount of proved claims and of dividends made to creditors of insolvent banks, banks which have gone into liquidation, the amounts and different kinds of United States bonds and other stocks and bonds held by the banks, the amount of specie and paper-money of the banks and in the United States, the unredeemed notes of State and national banks which have ceased to do business, the capital and deposits of State and savings banks, and the amount of national and State taxes. A list of these tables will be found on the following page, and an index to the last

report of each of the two thousand and eighty-seven national banks at the end of the volume.

In concluding this report the Comptroller takes great pleasure in acknowledging the uniform courtesy of the honorable Secretary of the Treasury, and desires also to tender his thanks to the officers and clerks associated with him, for the faithfulness and industry with which they have performed their respective duties.

JOHN JAY KNOX,
Comptroller of the Currency.

REPORT OF THE DIRECTOR OF THE MINT.

OFFICE DIRECTOR OF THE MINT,
Treasury Department, November 20, 1875.

SIR: In compliance with the provisions of the coinage act of 1873, I have the honor to submit the following report of the operations of the mints and assay-offices for the fiscal year ended June 30, 1875:

The amounts of gold and silver deposits and purchases, coins struck, and bars manufactured, were as follows:

DEPOSITS AND PURCHASES.

Gold deposits	$43,152,584 50
Silver deposits and purchases	18,304,406 07
Total amount received and operated upon	**61,456,990 57**

Deducting re-deposits—bars made and issued by one institution and deposited at another—the deposits were:

Gold	$38,556,293 90
Silver	16,070,626 54
Total	54,626,920 44

COINAGE.

	Pieces.	Value.
Gold	1,739,062	33,553,965 00
Silver	22,823,216	10,070,368 00
Minor	14,629,500	230,375 00
Total	39,191,778	43,854,708 00

BARS.

Fine gold	$5,279,477 46	
Unparted gold	10,740,402 47	
		16,019,879 93
Fine silver	5,231,915 90	
Unparted silver	1,719,665 96	
Sterling	77,848 68	
		7,029,430 54
Total gold and silver		23,049,310 47

The distribution of the gold and silver bullion deposited and purchased, including redeposits, was as follows:

MINT, UNITED STATES, PHILADELPHIA.

Gold deposits	$5,636,376 01
Silver deposits and purchases	4,168,412 22
Total	9,804,788 23

MINT, UNITED STATES, SAN FRANCISCO.

Gold deposits	$26,335,100 52
Silver deposits and purchases	5,154,297 38
Total	31,489,397 90

MINT, UNITED STATES, CARSON.

Gold deposits	2,540,057 59
Silver deposits and purchases	3,030,910 73
Total	5,570,968 32

MINT, UNITED STATES, DENVER.

Gold deposits	909,011 02
Silver deposits	83,108 47
Total	992,119 49

UNITED STATES ASSAY OFFICE, NEW YORK.

Gold deposits	7,608,463 91
Silver deposits and purchases	5,866,783 21
Total	13,475,247 12

UNITED STATES ASSAY OFFICE, CHARLOTTE, N. C.

Gold deposits	6,562 12
Silver deposits	127 91
Total	6,690 03

UNITED STATES ASSAY OFFICE, BOISE, IDAHO.

Gold deposits	117,013 33
Silver deposits	766 15
Total	117,779 48

The coinage at the different mints during the fiscal year was as follows:

Description.	Pieces.	Value.
MINT UNITED STATES, PHILADELPHIA.		
Gold coinage	278,258	$5,162,870
Silver coinage, (trade-dollars)	476,800	476,800
Silver coinage, (subsidiary coin)	11,010,400	3,168,710
Minor coinage	14,629,500	230,375
Total	26,394,958	9,038,755
MINT UNITED STATES, SAN FRANCISCO.		
Gold coinage	1,330,000	26,200,000
Silver coinage, (trade-dollars)	3,379,000	3,379,000
Silver coinage, (subsidiary coin)	4,895,000	948,000
Total	9,604,000	30,527,000
MINT UNITED STATES, CARSON.		
Gold coinage	130,804	2,191,095
Silver coinage, (trade-dollars)	1,841,700	1,841,700
Silver coinage, (subsidiary coin)	1,220,316	256,158
Total	3,192,820	4,288,953
Total coinage	39,191,778	43,854,708

The bars made and issued at the mints and assay offices were as follows:

MINT, UNITED STATES, PHILADELPHIA.

Fine gold bars	$40,713 92
Fine silver bars	278,072 74
Total	318,786 66

MINT, UNITED STATES, SAN FRANCISCO.

Unparted gold bars	9,624,439 39
Unparted silver bars	836,841 73
Total	10,461,281 12

MINT, UNITED STATES, CARSON.

Unparted gold bars	83,376 61
Fine silver bars	344,728 10
Unparted silver bars	798,821 70
Total	1,226,926 41

MINT, UNITED STATES, DENVER.

Unparted gold bars	909,011 02
Unparted silver bars	83,108 47
Total	992,119 49

UNITED STATES ASSAY OFFICE, NEW YORK.

Fine gold bars	5,238,763 54
Fine silver bars	4,609,115 06
Sterling bars	77,848 68
Total	9,925,727 28

UNITED STATES ASSAY OFFICE, CHARLOTTE, N. C.

Unparted gold bars	6,562 12
Unparted silver bars	127 91
Total	6,690 03

UNITED STATES ASSAY OFFICE, BOISE, IDAHO.

Unparted gold bars	117,013 33
Unparted silver bars	766 15
Total	117,779 48

Compared with the previous year, there was an increase of $3,182,254.76 in the amount of silver operated upon—$4,086,766.70 in silver coinage and $181,631.36 in silver bars.

	Mints.					Assay offices.			Total.
	Philadelphia.	San Francisco.	Carson.	Denver.	New Orleans.	New York.	Charlotte.	Boise.	
EARNINGS.									
Coinage charge	$7,437 47	$51,643 76	$14,423 47						$73,504 70
Parting and other charges	4,562 94	51,035 34	50,067 41	$1,240 08		$81,280 35	$265 89	$268 67	188,720 68
Gain by coinage of subsidiary silver coin	218,745 13	54,249 70	22,332 17						295,327 00
Minor coinage profits	140,778 81								140,778 81
Sale of by-products and old material	381 22		18,043 04			20,515 01			38,939 27
Residue fluxes and sweepings	1,893 64	2,019 43	1,137 94	610 45			264 25		5,925 71
Medal profits	5,717 16								5,717 16
Surplus bullion, (melter and refiner)		371 64				*34,660 90			35,032 54
Assay of ores	156 25					305 00			461 25
Total	379,672 62	159,319 87	106,004 03	1,850 53		136,761 26	530 14	968 67	784,407 12
EXPENDITURES.									
Regular ordinary account.									
Salaries	37,300 00	25,604 37	24,235 57	10,400 00	$3,319 23	35,650 00	3,300 00	6,800 00	146,609 27
Wages	137,156 54	277,835 09	101,369 07	15,385 00	2,380 00	72,556 89	715 50	2,534 92	609,536 01
Contingent	69,562 13	77,963 37	98,344 41	4,426 19	4,023 01	60,199 07	725 54	3,137 42	318,400 64
Freight	15,230 69								15,230 69
Minor coinage account.									
Wages	92,062 26								92,062 26
Incidentals	13,252 12								13,252 12
Freight	10,851 98								10,851 98
Wastage	7,966 79								7,966 79
Difference between assay value of sweeps sold and amount realized	2,707 09	3,344 42	3,553 80			3,658 71			13,264 02
Gold and silver wastage	3,504 34	2,482 44	4,513 44						10,500 22
Total	389,593 94	387,249 69	232,016 29	30,211 19	9,722 34	172,064 67	4,340 54	12,472 34	1,237,671 00

* Results chiefly from partible metal in deposits, not containing a sufficient percentage to defray the expense of parting them individually for the depositors, and which accrues to the Government by parting in the aggregate.

Equipment of a refinery in the mint at San Francisco, enlargement of the melting and refining facilities in the United States assay office at New York, and increased coining facilities at the mints in Philadelphia and Carson.

The original plans for the new mint edifice at San Francisco, and according to which it was constructed, contemplated the use of the nitric acid process for refining. When the building had been completed and occupied for coining operations, it was thought that the space allotted for the refining was sufficient for the employment of the sulphuric-acid method, but after the plans and drawings for the same had been prepared, it was found that a sufficient capacity could not be obtained, or the iron portions of the rooms secured against serious injury from sulphurous acid gas generated and emitted during the refining operation. After an exhaustive examination of the subject, it was determined, with your approval, to equip a nitric-acid refinery, with certain modifications and improvements, having for their object increased efficiency and reduced cost of separating (usually termed refining) of the precious metals.

The arranging of the plan of the refinery and its equipment was intrusted to Robert E. Rogers, professor of chemistry in the University of Pennsylvania, whose eminent qualifications as a chemist and metallurgist, rendered him peculiarly qualified for this service, and who performed the duty assigned him in an entirely satisfactory manner. The refinery has been in successful operation since the 26th day of August last, and with much advantage to the public interests.

The business of the assay office in New York has increased to such an extent during the last two years, as to render necessary the occupancy of the rooms in the Wall street building, which have until recently been rented to banking firms. These rooms have been altered, repaired, and otherwise put into condition for the purposes to which they are hereafter to be devoted, and the capacity for melting and refining bullion has thereby been doubled, and the office is better adapted in many respects for the convenient transaction of its business.

A careful examination by the Supervising Architect of the Treasury, of the rear building, in which refining by sulphuric acid has been carried on for a number of years, having developed the fact that the iron beams were corroded by sulphurous acid gas to such an extent as to weaken them and render additional supports necessary, the latter have been provided and put in place by the officer referred to.

The duplication of the coining machinery at the mint in Carson, for which an appropriation was made two years ago, has been completed and the coining capacity doubled. At the mint in Philadelphia, the annealing capacity having been found too limited, two additional furnaces have been erected, and the coining capacity thereby increased. With these improvements the mints and assay offices are in a very efficient condition.

ADDITIONAL VAULT FACILITIES REQUIRED.

The experience of the last year has demonstrated the insufficiency of the facilities of the Treasury and its offices for the convenient and safe storage of coin, particularly in the Western States, and more silver coin has of late been retained in the custody of the mints than could be properly cared for.

In view of this fact and the increased amount of coin which will have

to be stored in the Treasury offices in different parts of the country before specie payments shall have been resumed, it is suggested that the provision of additional vaults should be undertaken at an early day.

PREPARATIONS FOR COINAGE AT NEW ORLEANS.

Under the provisions of the act of Congress approved June 20, 1874, the mint at New Orleans has been prepared for re-opening as far as the limited appropriations therefor would permit, and it would now be practicable to conduct thereat the operations of melting, assaying, and stamping of bullion; but the appropriations having been made for the purpose of re-opening the establishment, "to be conducted hereafter as a mint subject to the provisions and restrictions of the coinage act of 1873," do not authorize it to be conducted as an assay office.

Estimates for the appropriations necessary to carry into effect the provisions of law above referred to will be submitted for your consideration and such action as you may deem proper.

THE TRADE-DOLLAR.

In the latter part of the year 1872, it became apparent that the change in the German monetary system, and other causes affecting the demand and supply, would produce a serious decline in the value of silver and injuriously affect our silver mining interests.

To provide a market for the silver mined in the western portion of our country, a coin of a standard likely to make it acceptable in China was authorized early in the following year, 1873. About two years afterward, January, 1875, a law looking to the substitution of silver for the paper fractional currency was enacted. Upon a superficial examination the trade-dollar may be supposed to interfere with the plan of substituting silver for the fractional currency; such, however, is not the case, its coinage not having the least effect on the general market-price of silver. The real effect is to make something of a local market at San Francisco, and if our annual production of that metal was not more than the mints could coin, the silver production of the Pacific coast would command slightly better rates; but the fact is, the coining-capacity of the mints for silver coins of less denomination than the dollar is not equal to more than half the production, and two years' yield of the mines will, it is probable, furnish sufficient silver to manufacture all the fractional coins that can be advantageously used in the country.

After the redemption of the fractional notes, silver coins, with the exception of the trade-dollar, can only be issued under the coinage laws in exchange at par for gold coins; and as this limitation will be a barrier to their excessive coinage, the demand for bullion for that purpose must, after two or three years, be quite small. The coining rate of silver in trade-dollars is $\$1.14\frac{28}{100}$ per standard ounce. Deducting the charge of $1\frac{1}{2}$ per cent. on the nominal value (equal to $1\frac{43}{100}$ cents per ounce) gives a return to the depositor in that coin of nearly 113 cents per ounce. The fact that the average price of silver purchased for the

NOTE.—$1,000,000 in gold coin weigh 53,750 troy ounces, or 3,685.71 avoirdupois pounds; equal to, at 2,000 pounds to the ton, 1 ton 16 cwt. 86 pounds.
$1,000,000 in trade-dollars weigh 875,000 troy ounces, or 60,000 avoirdupois pounds; equal to, at 2,000 pounds to the ton, 30 tons.
$1,000,000 in subsidiary silver coin, (half and quarter dollars, 20-cent pieces, and dimes,) weigh 803,750 troy ounces, or 55,114.28 avoirdupois pounds; equal to, at 2,000 pounds to the ton, 27 tons 11 cwt. 14 pounds.

fractional coins has been only $111\frac{4}{10}$ cents per standard ounce, proves that the trade-dollar coinage has not influenced the price to any perceptible extent.

The Comstock bullion, which has San Francisco for its natural market, consists, on the average, of twenty-one parts by weight of silver to one of gold. The two metals must be separated or parted before either can be brought to the legal standard for coinage. The most economical proportion for the parting operation being two parts by weight of silver to one of gold, the Comstock bullion admits of gold containing a small percentage of silver, being added and refined with but trifling expense compared with that which would be incurred if fine silver had to be purchased and added to such gold to bring it to the proper proportions for refining.

This class of bullion is, for this reason, a favorite in the London market, where gold containing a small percentage of silver constitutes principally the partible bullion received, and a higher rate is paid for it there than for fine silver.

Formerly this unparted bullion was nearly all shipped direct from the mines to London, but the coinage of the trade-dollar and repeal of the charge for coining gold have caused it, during the present year, to be refined and minted in the United States.

Ultimately China must have a national coinage of silver, and in the mean time a more extensive use of the silver coins of other countries will be found advantageous not only to the Chinese, but to foreign residents at the different ports. The American trade-dollar has been well received in that empire, and if authority were given to coin at our western mints five, ten, twenty, and fifty-cent pieces of the *same standard*, they would no doubt find a ready market at the different commercial ports, and gradually work their way into the interior of the empire.

If this trade-coinage should incidentally afford protection to our mining interests, which have already been injuriously affected by the fall in the value of silver, it could hardly be regarded otherwise than as sound national policy.

PURCHASES AND COINAGE OF SILVER.

The first section of the act of January 14, 1875, for the resumption of specie payments, authorized and required the Secretary of the Treasury, to cause to be prepared as rapidly as possible, silver coins for the redemption of the fractional currency.

The purchases of silver-bullion for this purpose from January 14 to October 31, 1875, have amounted to $9,183,417.37, at an average price, with the refining charge added for the Doré bullion, of $111\frac{4}{10}$ cents per ounce standard. The average price of silver in London during the same period has been 56.99 pence per ounce, British standard, which, reduced to United States standard and money, gives $112\frac{4}{10}$ cents.

The following statement exhibits the purchases made to October 31, 1875, and a comparison of rates paid with London quotations:

Purchased by the United States.			London rates.					
					Equivalent in U. S. coin per standard ounce.			
Date.	Amount.	Rate paid per ounce standard.	Silver containing 5 grains gold.	Fine silver.	Silver containing 5 grains gold.	Fine silver.	Difference in favor of the United States.	Percentage of difference.
1875.	*Dolls. Cts.*	*d. c. m.*	*Pence.*	*Pence.*	*d. c. m.*	*d. c. m.*	*d. c. m.*	
Jan. to Sept. 18.	1,310,718 31	1 11 3	.....	56 9-16	.....	1 11 5	0 0 2	
Feb. 13.....	490,536 12	1 13 1	.....	57⅛	.....	1 13 4	0 0 3	
Feb. 20.....	82,720 21	1 12 5	.....	57⅛	.....	1 13 4	0 0 9	
Feb. 25.....	927,500 00	1 12 9	.....	57⅛	.....	1 13 4	0 0 5	
Apr. 6.....	624,999 00	1 12 5	.....	57 3-16	.....	1 12 8	0 0 3	
Apr. 23.....	426,921 13	1 13 8	.....	57⅛	.....	1 13 9	0 0 1	
May 28.....	248,000 00	1 11 6	.....	56⅛	.....	1 11 7	0 0 1	
June 7.....	493,828 17	1 08 9	.....	55⅛	.....	1 09 5	0 0 6	
Aug. 30.....	2,036 17	1 09 1	.....	56⅛	.....	1 11 9	0 2 8	
Fine silver.....	4,607,259 11	*1 11 7	.....	*56.9	.....	*1 12 3	*0 0 6	⅛ of 1 per ct.
Mar. 15.....	1,094,599 56	1 13 8	57⅛	.....	1 13 9	.....	0 0 1	
March 17.....	191,106 78	1 12 7	57 15-16	.....	1 14 2	.....	0 1 5	
Apr. 2.....	204,497 81	1 12 7	57 13-16	.....	1 14 0	.....	0 1 3	
June	1,437,126 34	1 09 3	56 15-16	.....	1 12 3	.....	0 3 0	
June 8.....	1,425,604 38	1 07 1	56⅛	.....	1 10 7	.....	0 3 6	
July 2.....	499,928 78	1 08 4	56	.....	1 10 4	.....	0 2 0	
Aug. 21.....	489,237 96	1 09 1	56 13-16	.....	1 12 1	.....	0 3 0	
Aug. 26.....	386,707 44	1 09 1	57 1-16	.....	1 12 5	.....	0 3 4	
Aug. 28.....	1,056,868 80	1 09 1	57 1-16	.....	1 12 5	.....	0 3 4	
Aug. 30.....	642,228 54	1 08 9	57 1-16	.....	1 12 5	.....	0 3 6	
Aug. 31.....	611,675 31	1 08 9	57⅛	.....	1 12 7	.....	0 3 8	
Sept. 2.....	81,213 87	1 08 0	57 3-16	.....	1 12 8	.....	0 4 8	
Doré.....	8,050,795 57	[1] 1 09 7	[1]57.06	.....	*1 12 5	.....	*0 2 7	2½ per cent.
Total.....	12,658,054 68							

* Average.

[1] Deducting gold contained in Doré bullion, $3,474,637.31, the amount of silver purchased up to October 31, 1875, has been $9,183,417.37.

NOTE.—The Doré bullion was refined or parted on account of the United States at an average cost of ½ cents per ounce.

The purchases were commenced soon after the passage of the act, and continued from time to time, as was required, for the economical working of the mints; the quantity proposed to be purchased, and limit of price to be paid having been in each case first submitted to the Secretary, and his approval obtained. In making these purchases, the condition of the bullion and exchange markets was carefully inquired into, the London rates ascertained, and the respective superintendents instructed to purchase at the lowest market rate, and not above the limit authorized.

The coining rate of the fractional silver coins being $124\frac{4168}{10000}$ cents per standard ounce, and the average cost of the bullion $111\frac{4}{10}$ cents, the seignorage or gain on its coinage will be 13 cents per ounce, or about 12 per cent.

The fractional silver coin manufactured during the same period was as follows:

	No. of pieces.	Value.
Half-dollars	10,535,200	$5,267,600
Quarter-dollars	4,260,200	1,065,050
Twenty cents	1,253,590	250,718
Dimes	12,375,400	1,237,540
Total	28,424,390	7,820,908

The coinage of these pieces for the month of November may be set down at $680,000, and the amount in the Treasury and mints on the 31st

of January, 1875, at $1,500,000; which amounts, added to the coinage from February 1 to October 31, 1875, inclusive, would give a total of about $10,000,000.

The amount of silver coins exchanged at par for gold during the fiscal year was $20,425.37; the difference between the cost of the silver coins and their nominal, or tale value, being a gain to the Treasury.

REDEMPTION OF FRACTIONAL PAPER-CURRENCY IN SILVER COINS.

The policy of the redemption of the fractional paper-currency in silver coin in advance of gold-resumption has been discussed to some extent, and various suggestions made as to the practicability of the scheme. So far as the measure was predicated upon an expected favorable condition of the silver-market, the result has thus far been satisfactory, and will no doubt continue to be so in the future; but the appreciation in the value of legal-tender notes (which is also necessary to insure a favorable result) has not taken place; on the contrary, the average value of the paper-currency has been lower since than it was at the time of the passage of the act, and this notwithstanding the fact that about $9,000,000 in legal-tender notes have been withdrawn and canceled.

To state the causes of the increase of the gold premium, or decrease in the value of United States notes, would involve a review of the condition of the various industries of the country, its finances, our foreign indebtedness, and the state of the principal money-markets of Europe, which cannot be properly undertaken in this report. It may be stated, however, that some of the causes may be regarded as of a temporary character, and that certain contingencies connected with the money-market and gold-supply have tended to place the limited amount of coin in this country, other than the Treasury stock, almost entirely within the control of speculation, thereby rendering its price somewhat arbitrary.

This state of affairs was intensified by the recent financial disturbances on the Pacific coast, where gold constitutes the circulating-medium, and by the temporary interruption of the supply of bullion from the largest producing mines of the country, caused by the destruction by fire of the hoisting and other works of these mines.

A very gradual contraction of the legal-tender notes and a moderate revival of business will, it is probable, by the time the necessary stock of silver coin to commence the redemption can be prepared, reduce the gold-premium to such a point as will insure the success of the measure.

The depreciation of United States legal-tender notes, which commenced soon after their issue took place, caused the silver coins to be exported, and rendered the employment of a substitute necessary. The issue of fractional notes was undoubtedly preferable to the debasement of the silver coins, but their permanent use is neither desirable nor practicable. The annual issue being about $36,000,000 on a circulation of from $40,000,000 to $45,000,000, shows the average life of these notes to be, say, fifteen months.

The estimates of the Treasury officers having charge of the business show the necessary expense of maintaining this currency, during the last fiscal year, to have been $1,410,746. This does not include the expense attending the handling of the fractional notes at the different subtreasuries and depositories, all of which receive them for redemption, and which, if added to the expenses incurred at the Department, would probably show the total cost of maintaining the fractional currency to

be equal to about 5 per cent. on the annual issue, and corresponding with the interest on the amount of bonds which may have to be sold to procure, say, $36,000,000 (gold value) in silver-bullion for coinage, and which would give silver coins of the nominal value of $45,000,000.

Notwithstanding the expense incurred, and the care which has been exercised by the Government, to renovate and keep the fractional currency in good condition, it is well known that a large percentage of the notes in circulation, particularly in localities not convenient to banks, are deteriorated to an extent rendering them quite unfit for use. It has also been counterfeited to a much greater extent than coin, and the detection of the spurious notes is infinitely more difficult than counterfeit coins. The loss to the public from this source must ultimately be very considerable.

The "wastage," as the small percentage of these notes worn out or destroyed while in circulation may be properly termed, falls mostly upon a class of people the least able to bear it. It is no satisfaction to a man who suffers the loss of a tenth of his day's wages by receiving a 25-cent note which no one will accept from him in payment, to be told that it reduces to that extent the expenses of the issue of such money by the Government of the United States.

The expense of manufacturing the subsidiary silver coins is estimated by the mint officers at from 1½ to 2 per cent., the rate being less when the mints are worked to their maximum capacity. The total expense attending the manufacture of the coinage of the last fiscal year ($43,854,708) was $889,370, or about 50 per cent. of the expense of maintaining the fractional currency. In this estimate the seigniorage realized on the silver and minor coinage ($436,105.81) has not been considered as reducing the cost of coinage, the same being regarded as a gain to the Government, and not an earning by the mints.

The rule of the principal countries is to redeem in kind the subsidiary silver coins when worn to an extent rendering the inscriptions illegible. A long period, probably fifty years,* would elapse before any considerable portion of a new issue of silver coins would diminish in weight by abrasion to an extent sufficient to require their withdrawal. The advantage in this respect of silver coins over paper fractional currency is so great as not to admit of comparison. Moreover, their bullion-value, when presented for exchange for new pieces, would, of course, be the same, or nearly so, as when issued, less the loss by wear.

The seigniorage or gain to the Treasury on the subsidiary silver coins will be from 10 to 12 per cent., and more than sufficient to defray the necessary expenses of coining, distribution, and maintenance in good condition.

It is a well-settled principle that the "change" currency, in order to remain in circulation, must be inferior in intrinsic value to the standard coins. If of the same value, or convertible into such coins, it would, whenever the standard money became scarce, be presented for conversion at a rate that would withdraw it for a time from circulation, and thereby subject the public to great inconvenience.

The divisions of the dollar, or change-money, being constantly handled, are more rapidly worn than the larger denominations. Paper is, therefore, a very defective material for such money, and the expense of renovation being so great, the provision of law for the withdrawal of these

* The result of careful observation and experiments in this country shows the average diminution from natural abrasion of the whole body of silver currency, when in actual circulation, to be about 1 per cent. in twelve years: quarter-dollars and dimes showing a greater percentage than half-dollars.

notes and substitution of coin is undoubtedly judicious. Silver has been adopted for such a currency by the principal countries, the coins being stamped at a valuation sufficiently above their bullion-value to render them inexportable in the ordinary fluctuations of bullion and exchange.

NOTE.—The following memoranda are gathered from the laws and regulations of different countries as to the renovation and calling in of worn subsidiary coins.

Great Britain.

* * * "The silver coinage is issued through the medium of the Bank of England, who are able, as in the case of gold, to judge from the amount in their possession, and the demands made upon it, at what times and in what quantities fresh supplies will be required for circulation. As, however, silver is a token coinage representing more than the intrinsic value of the metal used in its manufacture, it is coined for the profit of the state, and not from metal brought in, as in the case of gold, by the public. Silver bullion for coinage is purchased with sums advanced to the master of the mint, from time to time, from the consolidated fund, by the treasury, under the ninth section of the coinage act.

"The advantage of making silver a token coinage has been shown in a former portion of this report, and it is evident that if under the existing law silver were coined on demand for persons bringing it to the mint, the profit on the transaction would hold out so great an inducement to the public to offer it for coinage as to lead in a short time to an inordinate amount of coinage, and to the consequent depreciation of that part of the currency. This profit, then, levied as a seigniorage with the object already mentioned, accrues as of right to the state; but, on the other hand, it becomes equally the duty of the state to withdraw from circulation, at its own expense, all silver coins which may become worn and unfit for further use. This withdrawal is effected through the Bank of England, who undertakes the 'garbling' or sorting shillings and sixpences, and of returning the worn pieces periodically to the mint. The worn coin is received by the mint at its nominal value, and a vote of £15,000 a year is annually taken in the mint-estimates for the loss on its recoinage.

"So far as England is concerned this arrangement insures a constant supply of good silver coin, and the withdrawal of coins which have become unfit for circulation. * * *

"There is no least current weight 'for silver coins.' As silver is a token coinage, the withdrawal of silver coin is undertaken by the state." * * * —*British Mint Report*, 1870.

Monetary treaty concluded December 23, 1865, between France, Belgium, Italy, and Switzerland.

* * * "The small silver coins must be withdrawn from circulation as soon as they have lost by abrasion 5 per cent. below the legal allowance. The pieces are to be recoined by the government issuing them, when they shall have been reduced by usage 5 per cent. below the minimum, or when their stamp shall have been effaced." * * *

German empire.

* * * "National silver, nickel, and copper coins which, by long circulation or use, have lost considerably in weight or imprint, will be received in national and local depositories, but must be withdrawn at the expense of the empire." * * * —*Mint law of July 9*, 1873.

Monetary convention between the King of Norway and Sweden and the King of Denmark, May 27, 1873.

"ART. 10.— * * * Subsidiary coin ceases to be legal tender of payment, relative to the state funds, when so worn as to be no longer capable of identification in so far as regards the country by which it was issued, but relative to all other parties when the inscription shall have become disfigured, or when it shall have been rendered indistinct by abrsion.

"All coin having ceased to be deemed legal tender of payment relative to private funds and parties, shall be withheld from circulation after having been paid into any of the state funds. The same rule applies to silver coin which shall have been reduced over 4 per cent. below its standard weight." * * *

Monetary system of the Netherlands.

* * * "6, 7. There is no law requiring the withdrawal from circulation coin whose value is diminished by wear. However, the accounting-clerks are authorized, by a decree of the minister of finance, to reserve coins which have been returned in so defaced a condition that they can no longer serve as a circulating medium.

"These coins are replaced by new ones at the expense of the state." * * *

INCREASE IN THE LEGAL-TENDER OF SILVER COINS SUGGESTED.

The subsidiary silver coins and the trade-dollar are by law a legal tender to the extent of five dollars. The propriety of increasing the amount to ten dollars is suggested for the consideration of the Secretary of the Treasury.

THE COURSE OF GOLD AND SILVER.

The principal money-markets of the world have been occasionally disturbed during the last three years, and the margin of the exchanges has been such as to afford a wide field for speculation. In seeking for the causes of these disturbances, it would appear, at first glance, that the supply of gold is unequal to the legitimate demands of the rapidly-increasing commerce of the world. A careful examination of the subject, however, will show that the monetary troubles have not been caused by insufficient supplies of gold, but by its having been withheld in large sums from circulation, and the diminished use of silver as money. It will be of some interest to note the events and circumstances which have caused this abnormal state of affairs.

In 1871, provision was made by law for a new money-system in the German empire, the principal features of which were the establishment of the exclusive gold standard, the demonetization of silver, and the issue of national coins, involving, as a necessary consequence, the withdrawal of all gold and silver coins then in circulation or held as treasury and bank reserves.

The amount of silver coin in the empire, at the time of the enactment of the new monetary-law, was estimated by the best authorities at about $350,000,000. It was expected that two-thirds of this amount would be exported to neighboring countries, and the balance converted into subsidiary coin.

The natural markets for this surplus were the Netherlands and those countries having a double standard, for the reason that silver has there a fixed rate to gold in the legal-tender coins. In proportion to the fall in the price of silver which immediately commenced, the silver coins of the Netherlands and the five-franc piece of France, Belgium, Italy, and Switzerland became depreciated to an extent which enabled exchange dealers and speculators to largely import silver for coinage, and these coins entering freely into circulation soon caused gold to be exported.

The countries referred to became alarmed, and measures were taken by them to prevent a further influx of silver at the expense of gold. The Netherlands temporarily closed its mint, and France, together with her monetary allies, limited the manufacture of *legal-tender silver coins at their respective mints to a total of about $28,000,000 for the year 1874, and the same amount for 1875; the contingent for each year being about as follows:

	Francs.
France	60,000,000
Belgium	12,000,000
Italy	60,000,000
Switzerland	8,000,000

*The words "legal-tender silver coins" refer to coins that are by law unlimited legal tender, and not to subsidiary or token silver coins which are purposely over-valued, issued on government account only, and limited as to issue and legal tender.

The closing of the Netherlands mint was followed by the enactment of a law which authorized the coinage of a legal-tender gold piece, and prohibited the coinage of silver, except for government account. These measures were skillfully taken, and closed the door against silver, and correspondingly opened it for gold.

The delay in completing the great monetary reform in Germany must be attributed mainly to the action of the neighboring countries in practically closing what was expected would be the best and largest markets for silver. Under the former money system, Germany was a purchaser of silver; but when the change from the silver to the gold standard took place, ceased to be so and became a large seller.

The condition of the State Bank of Russia would appear to indicate that the prospective fall in silver had caused some uneasiness at St. Petersburg, and that protective measures had been taken, from the fact that the Bank held on the 1st of January, 1856, 67,897,561 roubles, gold, and 45,234,372 roubles, silver; and on July 22, 1874, 194,049,231 roubles, gold, and 23,315,329 roubles, silver.

Notwithstanding the large amount of specie received in payment of the French indemnity, Germany has, from time to time, since 1872, been a purchaser of large sums of gold, and the manufacture of the new standard national coins has already amounted to about $285,000,000. The coins, however, have not gone into general circulation to the extent originally expected, for the reason that the old standard silver coins which are inferior in value continue, under the provisions of the new monetary law, to be effective money in payments. Gold has, therefore, to a large extent been held in the vaults of the imperial treasury, mints, and the banks.

While this has been the course in Germany, France has been gradually recovering the gold which she lost during and after the close of the war with Prussia, the Bank of France alone holding more than $300,000,000 in specie.

The specie-stock of France before the war was estimated as follows:

	Francs.
Gold	4,800,000,000
Silver	1,200,000,000

The indemnity to Prussia paid in specie was 500,000,000 francs, leaving 5,500,000,000 francs in the country, which have remained in a dormant condition on account of the forced currency of paper money.

From what has been stated it will appear that governments, banks, and exchange-dealers have during the period under review been purchasers of gold which was likely to advance in value, and sellers of silver, which showed indications of a decline, and that the course of the precious metals during the last two years has not been controlled by the usual influences previously operating, but by transactions of unusual character and magnitude, involving, as a necessary consequence, large and sudden transfers of coin and bullion from one country to another, and which, by raising or depressing prices, created a wide field for speculative operations.

Fortunately such a condition of affairs rarely arises and cannot continue much longer. The gold standard is to go into force and effect throughout the entire territory of the German empire on the 1st of January, 1876, in accordance with an imperial decree of September 22, 1875, and which would appear to indicate the employment at an early day of more decided measures than heretofore for the withdrawal of the depreciated legal-tender silver coins, and thus make room for the more valuable new national money.

When the complete demonetization or withdrawal of these depreciated silver coins shall have been accomplished, gold will enter freely into the channels of circulation and money affairs resume their usual course.

France would appear to have a supply of specie abundantly sufficient for the resumption and maintenance of specie payments, and the treasury and bank reserves of Europe no doubt consist of a greater percentage of gold than at the time of the enactment of the new money law of the German empire. The sooner the German monetary reform now in progress is completed and the Bank of France, resumes specie payments, the better it will be for Germany, France, and the United States. The time fixed for resumption by France, is January, 1878, but it is probable that it will take place before the time specified.

The lowest price of silver immediately preceding the discovery of gold in California and Australia—average for the year 1848—was 59½ pence per ounce, British standard, 925 thousandths fine, and the highest price reached after those discoveries was in 1859, the average of that year having been $62\frac{1}{16}$ pence. From 1859 there was a gradual depreciation during thirteen years, after which the influx of California and Australia gold ceased to have any influence. The average of 1872 was $60\frac{5}{16}$ pence. Since then there has been a very marked decline, the prices falling in June and July, 1875, as low as 55½ pence.

During the last two months, September and October, the price in London has recovered to about 57 pence, owing to diminished receipts from the United States, and increased exports to the Indies and Spain.

The fabulous accounts which reached Europe of the discoveries made near the close of 1874 on the Comstock lode, in the State of Nevada, no doubt had some influence in bringing about the heavy decline in price which has occurred during the present year. Some of the accounts not only placed an excessive estimate on the probable yield of the extensive ore body, but the very important fact that the bullion from that source is, in value, nearly half gold appears to have escaped attention. For the information of those who may desire to consider the effect of the fall in silver on the finances, industries, commerce, and exchanges of different countries, it may be stated that the gold value of the principal legal-tender silver coins of European countries has, of late, averaged about 8½ per cent. less than their tale or nominal values in the moneys of account which they respectively represent.

THE FUTURE VALUE OF SILVER.

The gold standard practically prevailed in Great Britain a long period before 1816, during which time silver was likewise in circulation and a legal tender. In that year silver was demonetized, and gold made the exclusive standard and unlimited legal tender.

Since 1870 the exclusive gold standard has been adopted by the United States, Germany, Japan, and the Scandinavian states. The double standard exists in France, Belgium, Italy, Switzerland, the Netherlands, Portugal, and Spain, and the silver standard in Russia, Austria, Mexico, China, and the Indies.

The money systems of the South American states are very much confused, and it is difficult to determine their respective legal standards, but they no doubt call for the use of more silver than gold.

The circulating medium in the United States, France, Spain, Russia, and Austria consists chiefly of forced paper currency, amounting altogether to about $2,500,000,000 to $3,000,000,000. The legal basis for

the redemption of the same in the United States is gold; France, Italy, and Spain gold or silver, (in the fixed proportion of one to fifteen and a half,) at the option of the issuer, and for Russia and Austria silver.

No further extension of the exclusive gold standard appears to be probable for some years to come, although the period of waiting and expectation, as the limit placed upon the legal-tender silver-coinage of the states of the Latin monetary union and the Netherlands may be characterized, will no doubt continue until the German surplus silver shall have been distributed, but its effect on the price of silver will be counterbalanced to some extent by the use of subsidiary silver coin in the United States.

Four years having elapsed since the change in the German money system was inaugurated, and the adoption of the exclusive gold standard having been carried to the full extent warranted by the supply of that metal, we may reasonably expect an increased demand for silver, but not sufficient to cause for some time to come a material alteration in the present relative valuation of gold and silver, which is about as one to seventeen.

MONEY AND THE MONEY SYSTEM OF THE UNITED STATES.

The question of returning to a specie basis is receiving general and earnest consideration, and, while its discussion does not come within the limits of this report, certain well-settled principles and facts in connection with the subject of money and the monetary system of this country may with propriety be briefly referred to.

A money standard subject to as little variation as possible, and by which values may be computed, exchanges effected, and contracts fulfilled with uniformity and equity, has long been regarded as a necessity by every well-regulated government.

The experience of nations has proved the precious metals, and particularly gold, to be the least variable as a monetary standard and the best adapted for a circulating medium of all known substances; their peculiar properties, and particularly those of easy manipulation and resistance to the elements and agencies which either destroy or injuriously affect other metals and substances, rendering them eminently adapted for this service.

No material or substance not of intrinsic value, and comparatively imperishable, is suitable for a circulating medium and permanent standard of value. The value of the precious metals depends, as in the case of all other commodities, on certain inherent qualities and the cost of production. By value, is meant the rate in the legal money-terms of a nation or government at which labor and property of all kinds are exchanged one for another. A given weight of gold or silver, unlike all other things, has a fixed value by law in the legal money-terms of all countries, and this peculiarity contributes greatly to maintain uniformity in their value.

The units of the money of account of all countries associated in modern civilization were originally based on, or declared by law to be represented by, a certain weight of pure metal in the form of coins, and the latter made a legal tender without limit.

The quantity of pure metal representing the ideal unit of the money of account, once being fixed by law, becomes the basis of exchange and measure of contracts, and its steady maintenance has always been regarded by the most enlightened statesmen and eminent writers on finance as an imperative duty of governments.

The precious metals being the real basis of all well-regulated money

systems, no one commercial country can even temporarily depart from such without subjecting itself to serious evils. All paper money issued in countries having monetary systems based on the precious metals, whether forced into circulation by authority or received without compulsion, are simply promises to pay in coins representing the monetary unit, and their payment in such coins or redemption in their equivalent is obligatory on the issuer.

Soon after the adoption of the Constitution of the United States, the subject of a national money system was taken into consideration, and able papers on the subject were contributed by Hamilton, Jefferson, Gouverneur Morris and other eminent men of that period. The result was the passage of the act of April 2, 1792, which established the Mint for the purpose of a national coinage, and the money of account of the United States; authorized the coinage of gold and silver coins of prescribed weight and fineness, and declared them lawful tenders in payment of all sums whatsoever, those of full weight according to their stamped value, and those of less than full weight at values proportional to their respective weights.

The monetary standard established by the act referred to was gold and silver, and the importance which the eminent statesmen and financiers of that day attached to a uniform standard is seen in the provision which limited the legal-tender coins of less than full weight to their *actual bullion value.*

No subsequent acts of Congress declared anything but gold and silver a legal tender in the payment of debts, until the law of February 25, 1862, was enacted. This law authorized the issue, "on the credit of the United States," of United States notes "payable to bearer at the Treasury of the United States," and declared such notes a legal tender in the payment of all debts both public and private, except duties on imports and interest on certain bonds and notes.

A forced paper currency is well known to be, from various causes, subject to frequent fluctuations in value, and, unlike the precious metals, is wanting in the property of self-adjustment under the operations of supply and demand, and for these reasons alone must always prove an uncertain system upon which to conduct the business and exchanges of the country.

PRODUCTION OF THE PRECIOUS METALS FROM THE MINES OF THE UNITED STATES.

Several communications and statements from official sources respecting the bullion production will be found in the appendix. These papers embrace a detailed account of the gross yield of the mines in the State of Nevada for the last fiscal year, kindly furnished through the superintendent of the Carson mint by the State comptroller. It would be a very valuable addition to our bullion statistics if similar statements to that furnished by the State authorities of Nevada could be procured from all the States and Territories in which the precious metals are produced.

I take this occasion to acknowledge the hearty co-operation of the various State officials who were invited to furnish information on this subject.

NEW AND EXTENSIVE DEVELOPMENTS OF PRECIOUS-METAL ORES ON THE COMSTOCK LODE.

It was a curious coincidence that, about the time the spacious new mint at San Francisco was completed, and increased facilities given the Carson mint by the duplication of its coining-machinery, that the

Pacific coast should be surprised by the reported discovery of an ore-body in the Comstock lode which surpassed, in extent and richness, all others that had been previously met with.

Since the usefulness of those mints to the country at large, and more especially California and Nevada, depended upon the supply of the precious metals which they receive for manipulation, it was important to ascertain how far the expectations of an abundant supply from that source were likely to be realized. Additional interest was given to this discovery in consequence of the passage of an act of Congress looking to preparations for a return to specie payments.

In view of these facts, and being in California during the summer on official business, I felt it my duty to obtain correct information respecting the extent of the ore-body and its prospective yield of bullion. I accordingly sought a conference with the managers of the "Consolidated Virginia" and "California" mines, in which the discovery was represented to have been made, and explained to them my views, stating that the information sought was deemed important for the use of the Government.

The gentlemen applied to cheerfully acquiesced in my wishes, and volunteered every aid they could give in promoting my object, offering to allow me to select any one whom I thought proper to go into the mines for the purpose of making full observations and measurements, and to take specimens from the several drifts, cross-cuts, and winzes for assay, representing, as nearly as could be obtained, an average of the ore-body.

In view of this offer, I determined to make a personal inspection of these mines, and to call to my aid the services of Prof. Robert E. Rogers, who, as before stated, had been selected for the important duty of superintending the equipment of the refinery in the new mint at San Francisco. The annual settlement of the San Francisco mint having been completed, I visited Virginia City, in company with Professor Rogers, on the 16th day of July. After spending a day in examining the topography of the locality and the general course of the Comstock lode, as exhibited by the workings along its line, we entered the mines, and on the first day examined the drifts and cross-cuts, which had been made on the 1,400, 1,500, and 1,550 feet levels, observing the course of the same, and making such a collection of specimens as seemed to us to represent an average of the character of the ore-body. Upon comparing our views, it appeared that there were some points which needed a further and corroborative inspection, and accordingly the next day Professor Rogers repeated his visit into the mines, settled the points that had been omitted on the first day, and gathered a second extensive collection of specimens for assay.

Before we left Virginia City for San Francisco, the superintendent of the mines placed in our hands certified surveys, exhibiting the direction, relative position, and length of the galleries, cross-cuts, and winzes of the different levels. These surveys were taken to San Francisco for careful examination and study.

On the 26th of August, having official business at the Carson mint, I again visited the mines, repeated their inspection, and examined especially the explorations which had been made since my previous visit, taking specimens from them for assay.

At my request, the superintendent of the mines has furnished a statement, showing the explorations and developments made from August 26th, the date of my last visit, up to the 2d instant, (November.)

In the mean time, the assays of the specimens taken have been made under the supervision of Professor Rogers.

With the data thus obtained, we have been able to arrive at somewhat definite conclusions as to the probable yield of these mines. These conclusions are embodied in a report by Professor Rogers, herewith submitted, and in which I concur.

I have referred to the two mines under one head, since, for the purpose of our examination, it was not necessary to make any distinction between them. After the works recently destroyed by fire shall have been rebuilt and operations fully resumed, the total production of all the mines on the Comstock may be safely estimated at not less than fifty million dollars per annum, about forty-five per cent. of which will be gold.

In this connection it is interesting to add, as indicating the extensive bullion-resources of our western country, that a production nearly equal to that estimated for the Comstock may be anticipated from other domestic sources during the year 1876.

The favorable condition of the precious-metal mining industry is due to the judicious expenditure of a large amount of capital in extensive enterprises, by men of superior energy and business qualifications. Nearly all the mines on the Comstock, as well as the hydraulic gravel-mines in California and vein-mines in other localities, as a general rule, made heavy drafts on labor and capital before any returns on the outlay were secured. Notwithstanding the improvements which have been made in mining and in the reduction of ores, the business is one of uncertainty and hazard, and, taking one year with another, the expenses no doubt equal, if they do not exceed, the production.

Many of the present largest yielding mines were originally discovered by the adventurous and daring prospectors, who are always advancing into unexplored localities and endure hardship and danger which would soon discourage the boldest, were it not that under the liberal and fostering policy of the Government the discoveries which they may make become their own property, subject to conditions looking to a certain degree of exploration and development before complete title can be acquired. The first capital which follows these prospectors is generally sunk, and but a small proportion of the mines are continuously worked, and many totally abandoned after considerable expenditures have been made.

These facts show that the policy pursued by the Government with reference to the precious-metal mining-interests has been eminently wise, and should be steadily continued.

THE CONSTRUCTION GIVEN THE FIRST SECTION OF THE ACT OF MARCH 3, 1873, AS TO THE RULE OF VALUATION OF FOREIGN COINS, SUSTAINED BY THE SUPREME COURT.

In my last annual report the operations of the act of March 3, 1873, prescribing a new rule for the valuation in United States money of account, of foreign coins, and fixing the par of exchange with Great Britain, were described at some length, and the fact stated that the question as to the legality of the construction given the first section of the act by the Treasury Department was then pending in the Supreme Court of the United States.

Since the date of that report, the decision of that tribunal, sustaining the departmental construction, has been rendered, and the new rule of valuation applied to the standard coins respectively of all countries.

The values respectively of the standard coins of different countries, ascertained and proclaimed in accordance with the section of law referred to, will be subject to alteration only when any country shall change or modify its monetary standard.

MONEY SYSTEM OF CHINA.

Our increasing commercial intercourse with China renders it quite necessary that we shold possess accurate information as to the different money units or weights in use in the various ports of that extensive empire. The non-intercourse policy with foreigners, so long and rigidly observed, is gradually giving way under the influence of commerce, and it is to be hoped that the Chinese will, at no distant period, see the necessity which exists for, and the advantages which would result from, a reform in their present defective money system.

The nominal moneys of account are the liang, tsé'n, fun, and le, called by foreigners tael, mace, candareen, and cash. They are, with the exception of the last named, denominations of weight in decimal proportions.

Under the title of the Chinese tael, in the appendix will be found valuable information respecting the money-weights of China and the mode of using bullion in business transactions, for which we are indebted to the zealous and intelligent labors of S. Wells Williams, esq., secretary of the United States legation, Peking, and to the United States consuls at the various ports of the empire.

TEST ASSAYS OF THE COINAGE OF JAPAN.

Samples of the test or pyx coins of the imperial mint at Osaka, Japan, sent through the Department of State, with a request from the Japanese government that they be assayed at the Philadelphia mint, were received on the 1st instant, (November,) and, pursuant to your instructions, have been carefully tested at the Philadelphia mint, and the results reported to you.

The correspondence of the Japanese assays to those made here is very satisfactory, and shows that the legal standard fineness or purity of the coinage of Japan is faithfully maintained.

MONEY STATISTICS.

We are frequently called upon by members of Congress and others for information respecting the amount of specie in the country at different periods.

In my first annual report, 1873, I estimated from the most reliable data obtainable the amount of gold and silver coin in the country on the 30th of June of that year at $140,000,000. The estimate for June 30, 1874, was $166,846,228. The product of the mines during the last fiscal year may be stated at about $72,000,000, and the imports of bullion for the same period $20,900,717, making a total of $259,746,945
Deducting from this total the exports of the last fiscal year 92,132,142

Leaves as the estimated stock on the 30th of June, 1875. 167,614,803

In this estimate no account has been taken of the amount of gold and silver consumed in the arts and manufactures from June 30, 1872, to June 30, 1875. It is difficult to obtain any reliable data upon this point. Whatever the amount may have been, it was reduced to a considerable extent by the plate and other manufactured articles of gold and silver which found their way to the melting-pot from the accumulated stock of the country. Making due allowance for the latter, the amount to be deducted from the estimated total may be stated at, say, $15,000,000, and allowing $10,000,000 for possible overestimates, would leave the amount of coin in the country on the 30th of June, 1875, at about $142,000,000. Of this total, about $12,000,000 to $15,000,000 consists of silver coin and bullion.

I have taken considerable care to make an estimate of the amount of specie-circulation of the country at various important financial periods, availing myself of the Treasury and congressional reports, and covreing the time since 1790. This information will be found in the appendix.*

THE PRINTING OF CERTAIN DOCUMENTS RELATING TO MONETARY SYSTEMS SUGGESTED.

During the last two years a number of documents have been received at this Office, in response to circulars sent through the Department of State to our representatives abroad, containing valuable information relative to the monetary systems of foreign countries and the annual production of the precious metals. These documents have been translated, and it is suggested that they should be printed for public use. If this suggestion meets your approval, a small appropriation should be procured to cover the expense of properly arranging these papers, under the supervision of this Office.

SILVER CONTAINING MERCURY.

Gold and silver bullion is sometimes combined with other metals of a character calculated to render not only the complete refining of the gold and silver difficult, but to embarrass in a certain degree their assay, the correctness of which is of the highest importance, since by it the proportion of gold and silver respectively in all classes of bullion is determined, and constitutes the basis of all computations.

Traces of mercury having been observed in some of the deposits of silver recently received at the Philadelphia mint, the assayer of that institution made a careful examination of the subject, and has given the facts ascertained and conclusions arrived at in an interesting report, which will be found in the appendix.

ANNUAL SETTLEMENT.

The annual settlement of the coinage-mints and the assay-office at New York, and which embraced a careful count of the coin and bullion on hand at each institution, was made at the close of the fiscal year and proved satisfactory, the wastage having been unusually small.

My personal supervision was given to the settlement of the San Francisco and Carson mints; and at the Philadelphia mint and the assay-office, New York, experienced clerks of this Bureau attended and supervised the same.

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*The Treasurer of the United States in his report for the fiscal year ended June 30, 1872, (Finance Report 1871–72, p. 269,) gives the total cash balance at the close of that year as $107,587,169, and states that the balance consists of gold and silver $89,764,599
Other lawful money $17,822,569

The report of the Comptroller of the Currency for the same year (Finance Report, p. 96) gives the amount of coin held by the national banks in New York City on June 10, 1872, at 3,782,909
Other national banks 4,842,154

Making a total in the Treasury and national banks of 98,389,662

On page 307, Finance Report 1871–72, the Treasurer of the United States states the total amount of coin-certificates outstanding at 33,149,500
And the amount redeemed but not destroyed 1,063,200

Leaving total outstanding 32,086,300

No portion of these outstanding certificates was included in the Treasurer's coin balance or in the Comptroller's statement of the amount of coin held by the national banks in New York City.

The item of $4,842,154 coin held by other national banks included some coin-certificates, but the amount was inconsiderable.

I discharge a pleasant duty in acknowledging the faithfulness and efficiency with which the clerks of this Bureau have discharged their duties, and the fidelity and skill with which the various operations of the mints and assay-offices have been conducted.

I have the honor to be, very respectfully,

H. R. LINDERMAN,
Director of the Mint.

Hon. B. H. BRISTOW,
Secretary of the Treasury.

REPORT OF FIRST COMPTROLLER OF THE TREASURY.

TREASURY DEPARTMENT,
FIRST COMPTROLLER'S OFFICE,
Washington, D. C., November 1, 1875.

SIR: I have the honor to present the following summary of the business transacted by this Office during the fiscal year which ended June 30, 1875:

The warrants for covering money into the Treasury numbered 14,940, representing the aggregate sum of $675,971,607 10.

The warrants upon the Treasury examined and countersigned numbered 33,300, for the payment of $682,000,885 32.

Appropriation-warrants, 167.

Total number of warrants, 48,407.

The receipts of revenue were as follows:

From customs	$157,167,722 35
Internal revenue	110,007,493 58
Sales of public lands	1,413,640 17
Miscellaneous sources	19,411,195 00
Issues of the public debt, notes, &c	387,971,556 00
	675,971,607 10
Disbursements, including interest, but not principal, of the public debt	$274,623,392 84
On account of the public debt, notes, &c	407,377,492 48
	682,000,885 32
Excess of disbursements over receipts	$6,029,278 22

The accounts examined, revised, and certified by the Comptroller embrace the following:

Reported by the First Auditor:

Judiciary.—Accounts of United States marshals, attorneys, clerks, commissioners, and others	2,268
Judgments of the Court of Claims and return of proceeds of captured and abandoned property	110
Metropolitan police	4
Treasury.—Receipts and disbursements of revenue; issues and redemptions of the public debt, United States notes, &c	545
Mint and branches.—Coinage of gold and silver bullion, and minor coinage; expenses, repairs, and compensation	192
Public printing.—For paper, printing, and binding, and compensation of employés	63
Territorial.—Pay and expenses of legislatures; paper, printing, and binding, &c	329
Congressional.—Contingent expenses of the Senate and House of Representatives	105
Steamboat-inspection.—Salaries and expenses	368
Miscellaneous.—Embracing accounts of disbursing agents for salaries of the Executive Departments and public offices at Washington; public buildings, salaries of judges and officers of United States courts, &c	3,411

Reports of Fifth Auditor:

Diplomatic and consular.—Accounts arising out of intercourse with foreign nations; expenses of sick and disabled seamen, of aid rendered them abroad, and return of destitute seamen to the United States; of seamen's wages paid to consuls, and of estates of American citizens dying abroad	2,214
Internal revenue.—Accounts of revenues collected; of expenses of assessment and collections; of supervisors, agents, stamps, refunding taxes erroneously assessed; drawback on exportations, rewards, &c., represented by 6,564 reports	9,209
Patent Office.—Contingent expenses	4

Reports of Commissioner of the General Land-Office:

Lands.—Receipts from sales; compensation and expenses of surveyors, registers, and receivers, and accounts of lands erroneously sold	2,711
Official letters written	12,252
Receipts of collectors of internal revenue.—For tax-lists received and entered.	2,715
Requisitions of collectors examined and reported	2,620
Requisitions of United States marshals	292
Requisitions on diplomatic and consular accounts	1,226
Requisitions on miscellaneous accounts	297
Reports on internal-revenue accounts, copied	3,558
Internal-revenue cases prepared for suit	38

The foregoing statement contains but an enumeration of items, but does not show, as it could not, the labor or care required of the persons employed in the Office in their examination. The investigation of the accounts reported upon involved the examination of over 7,900,000 vouchers, and the adjustment of more than $2,300,000,000 represented in them. More than fifteen hundred powers of attorney have been critically examined, and a large number of bonds for the issue of duplicates of drafts and checks, and of certificates of the public debt in cases of loss and destruction.

In the report from this Office for the year 1867, I detailed at some length the duties imposed upon the employés of the Office, and the judgment and skill required of them, and asked an increase of the force so as to make it adequate to the labor. The force was increased, but subsequently decreased, and is not now sufficient. At the highest point it was too small, and it has been found necessary to ask of the Secretary a detail from his or other offices. A direct addition to the force is preferable to temporary transfers, for the latter cannot always be relied upon, and in the nature of things are not adapted to securing a high degree of qualification.

The following comparison will, to some extent, show the propriety of an increase:

The number of warrants issued during 1861, was	17,187
The number of warrants issued during 1867, was	40,814
The number of warrants issued during 1873, was	46,379
The number of warrants issued during 1875, was	48,407
The number of accounts revised and certified during 1861, was	7,998
The number of accounts revised and certified during 1867, was	18,409
The number of accounts revised and certified during 1873, was	17,896
The number of accounts revised and certified during 1875, was	18,888

During a few years past it has been found necessary, from want of force, in many instances, to embrace in report and warrant several distinct claims, and of different persons, and while this saves something of the labor necessary in preparing reports and warrants, it does not preserve that distinction which is desirable, and in after-examinations advantageous. The practice ought not, in my judgment, to be extended, but should be decreased.

The following is quoted from the report for 1867: "Inasmuch as this Office supervises the work of other offices, and its decisions are in the main final, the Comptroller thinks the clerks should be chiefly of the higher classes, and the compensation such as may secure character

and ability, and induce persons possessing such qualities to remain in the Office."

Entertaining these opinions, I respectfully recommend that one chief of division, one clerk of class four, one clerk of class one, and one laborer be added to the force now authorized.

In conclusion, I take pleasure in bearing testimony to the fidelity, efficiency, and promptness of the clerical force attached to the Office.

Respectfully submitted.

R. W. TAYLER,
Comptroller.

The SECRETARY OF THE TREASURY.

REPORT OF SECOND COMPTROLLER OF THE TREASURY.

TREASURY DEPARTMENT,
Second Comptroller's Office, September 30, 1875.

SIR: I have the honor to submit the following report of the operations of this office for the fiscal year ending June 30, 1875.

The aggregate number of accounts of disbursing officers and agents which have been received, as well as those which have been finally adjusted, is as follows:

From—	Received.	Revised.	Amount.
Second Auditor	11,693	12,220	$33,908,502
Third Auditor	9,628	10,720	90,328,805
Fourth Auditor	5,771	5,951	38,457,442
Total	27,092	28,891	162,695,049

The above accounts have been duly entered, revised, and the balances found thereon certified to the head of the Department in which the expenditure has been incurred, viz: Those from the Second and Third Auditors to the Secretary of War, (excepting accounts relating to pensions and Indians, which are certified to the Secretary of the Interior,) and those from the Fourth Auditor to the Secretary of the Navy.

Character of accounts.	Received.	Revised.	Amount involved.
From the Second Auditor:			
Accounts of disbursing officers of the War Department under the acts for collecting, organizing, and drilling volunteers	5	5	$112,317
Accounts for Army recruiting officers for the authorized expenses of the regular recruiting service	120	113	135,606
Accounts of Army paymasters for pay of the Army, including mileage to officers and general expenses	527	830	17,918,168
Special accounts settled by the paymasters' division	939	939	758,254
Accounts of disbursing officers of the Ordnance Department for the expenses of the ordnance service, and for ordnance, ordnance stores and supplies, armories, and arsenals	278	279	4,004,501
Accounts of agents of Indian affairs for the current and contingent expenses of the Indian service, including annuities and installments under treaties	1,711	1,690	7,958,610
Accounts of disbursing officers of the Medical Department for medical and hospital supplies, medical services, and other authorized expenses	482	482	305,776
Accounts of disbursements for contingent expenses of the War Department, including expenses for military convicts, contingencies of the Army, &c	54	54	115,632
Accounts of disbursing officers of the Freedmen's Bureau for pay and bounty to colored soldiers	4	4	800,246
Accounts of moneys received and disbursed for the Soldiers' Home	12	12	183,731
Accounts of moneys received and disbursed for the support of the National Home for Disabled Volunteer Soldiers	8	8	618,644
Total	4,143	4,588	32,911,685

Character of accounts.	Received.	Revised.	Amount involved.
From the Third Auditor:			
Accounts of disbursing officers of the Quartermaster's Department for the regular supplies and incidental expenses, Army transportation, barracks and quarters, clothing and equipage, the construction and repair of hospitals, the purchases of horses for cavalry and artillery, and of heating and cooking stoves, and claims for services pertaining to that Department	6,091	6,975	$51,419,290
Accounts of disbursing officers of the Subsistence Department for the subsistence of the regular troops and Indian scouts, including rations to ordnance men and sergeants in the ordnance and general service, to hospital-stewards, laundresses, and employés of Quartermaster's Department, and subsistence claims	756	791	5,259,924
Accounts of disbursing officers of the Engineer Department for military surveys, the construction of fortifications, river and harbor surveys and improvements, and the expenses of that department, torpedo experiments, and engineer claims and allowances under the eight-hour law	71	75	9,450,828
Accounts of pension-agents for the payment of pensions to invalid soldiers, their widows and dependent relatives, including soldiers of the war of 1812, furnishing artificial limbs and transportation or commutation therefor, compensation to the agents, and for other authorized expenses in that service, and pension-claims presented for adjustment	321	318	22,349,128
Accounts for disbursements made for the relief of destitute freedmen and refugees	3	3	37,368
Total	7,242	8,334	88,516,538
From the Fourth Auditor:			
Accounts of the disbursing officers of the Marine Corps for the pay of officers and pay and rations of the marines, and for the supplies of clothing, fuel, military stores, forage for horses, rent and repair of barracks and quarters, and hire of offices, the transportation and recruiting of the corps, and other authorized contingent expenses	9	11	849,777
Accounts of the paymasters of the Navy proper, for the pay and rations of the officers of the Navy and seamen, for supplies of provisions and clothing, and the expenses for the repairs of vessels on foreign stations, including the crew of the ship, and other authorized contingent expenses pertaining to that Department	978	983	10,562,540
Accounts of paymasters of the Navy Department, at the navy-yards, in the construction and repairs of vessels, for the pay of mechanics and laborers on the various works, including the pay of officers on duty at the yards and on leaves of absence	89	95	12,810,871
Accounts of paymasters of the Navy, acting as navy-agents and disbursing officers, in the purchases of timber and materials, provisions, clothing, naval stores and outfit, including advances to paymasters of the Navy proper	19	20	12,830,291
Accounts of Navy pension-agents, for the payment of pensions to the invalids of the Navy and Marine Corps, their widows and dependent relatives, compensation to the agents and expenses of the agencies	56	55	629,994
Total	1,151	1,337	37,693,473
Claims revised during the year:			
Soldiers' pay and bounty	7,550	7,632	997,117
Sailors' pay and bounty	1,471	1,465	377,094
Prize money	3,149	3,149	386,875
Lost property under act of March 3, 1849	421	421	90,097
Quartermaster and commissary stores, act of July 4, 1864, adjusted under the provisions of section 2, act of June 16, 1874, to be reported to Congress by the Secretary of the Treasury	373	373	169,294
Awards of Southern Claims Commission	1,324	1,324	1,260,572
Oregon and Washington Territory Indian-war claims	58	58	28,258
Montana Indian-war claims of 1867, certificates	32	32	30,300
Dakota Indian-war claims	173	173	21,802
State claims	5	5	202,984
Duplicate checks approved under act of February 2, 1872	514	514	25,265
Total	15,070	15,146	3,598,618
Barred cases adjusted	3,956		

Number of muster-rolls examined	18,986
Number of single vouchers examined	1,047,642
Settlements recorded during the fiscal year	9,891
Requisitions recorded during the fiscal year	12,528
Accounts on hand at the commencement of the fiscal year	2,599
Accounts on hand at the close of the fiscal year	800

Letters written on official business, pages	1,147
Copying differences on adjustment of accounts, pages	3,531
Number of contracts filed	1,337
Classified as follows, viz:	
Quartermaster's Department	506
Engineer Department	190
Indian Department	206
Ordnance Department	4
Navy Department	34
Adjutant-General's Department	36
Commissary-General of Subsistence	359
Official bonds filed	166

An act was passed at the last session of Congress diminishing the number of clerks, and, to a certain extent, re-organizing this office, with a deputy comptroller and chiefs of divisions recognized by law. The change has been beneficial, and the work of the office is in a satisfactory condition, very little of it being now in arrears.

Very respectfully, your obedient servant,

J. M. BRODHEAD,
Comptroller.

Hon. B. H. BRISTOW,
Secretary of the Treasury.

REPORT OF THE COMMISSIONER OF CUSTOMS.

TREASURY DEPARTMENT,
Office of Commissioner of Customs,
Washington City, D. C., October 25, 1875.

SIR: I have the honor to submit herewith, for your information, a statement of the work performed in this Office during the fiscal year ending June 30, 1875.

The number of accounts on hand July 1, 1874, was		159
The number of accounts received from the First Auditor during the year		5,993
		6,152
The number of accounts adjusted during the year	5,971	
The number of accounts returned to the First Auditor during the year	15	
		5,986
The number of accounts on hand July 1, 1875		166

There was paid into the Treasury of the United States from sources the accounts of which are settled in this Office—

On account of customs	$157,167,722 35
On account of marine-hospital tax	338,893 78
On account of steamboat-inspection	260,944 75
On account of fines, penalties, and forfeitures	228,870 23
On account of storage, services of officers, &c	434,882 85
On account of fees of customs-officers	677,617 68
On miscellaneous accounts	8,512 23
	159,117,443 87

And there was paid out of the Treasury—

On account of expenses of collecting the revenue from customs	7,028,796 77
On account of refunding excess of deposits	1,863,657 85
On account of debentures	1,628,846 74
On account of public buildings	4,559,268 13
On account of construction and maintenance of lights	2,933,903 03

On account of construction and maintenance of revenue-cutters	$986 093 66
On account of marine-hospital service	404,390 60
On account of life-saving stations	223,656 46
On account of distributive shares of fines	67,361 87
On miscellaneous accounts	30,362 70
	19,726,337 81

The number of estimates received	2,892
The number of requisitions issued	2,831
The amount involved in said requisitions	11,952,155 49
The number of letters received	10,888
The number of letters written	12,345
The number of letters recorded	10,318
The value of postage-stamps used	$371 36
The number of returns received and examined	10,824
The number of oaths examined and registered	5,841
The number of appointments registered	5,600
The average number of clerks employed	30
The amount involved in this statement	$190,796,308 53

I also inclose a statement of the transactions in bonded goods during the year ending June 30, 1875, as shown by the adjusted accounts.

Very respectfully, your obedient servant,

H. C. JOHNSON,
Commissioner of Customs.

Hon. B. H. BRISTOW,
Secretary of the Treasury.

Statement of warehouse transactions at the several districts and ports of the United States for the year ending June 30, 1875.

DISTRICTS.	Balance on bonds to secure duties on goods remaining in warehouse July 1, 1874.	Warehoused and bonded.	Re-warehoused and bonded.	Constructively warehoused.	Increase of duties ascertained on liquidation.	Withdrawal duty paid.	Withdrawal for transportation.	Withdrawal for exportation.	Allowances and deficiencies.	Balance on bonds to secure duties on goods remaining in warehouse June 30, 1875.
Albany				$146,216 31		$146,216 31				
Alexandria	$667 43					667 43				
Baltimore	726,726 74	$4,479,509 54	$20,393 13	61,008 88	$128,168 54	3,952,987 64	$66,239 45	$73,191 77	$273,841 62	$1,049,546 35
Buffalo Creek	21,377 63	10,587 89	12,340 89	122,396 46	208 96	32,084 10	34,185 43	98,594 05		2,742 25
Belfast	468 98	7,326 86	417 04			1,466 36		570 34		6,176 18
Bangor	1,245 70	2,529 52	484 47	1,517 88		210 38	1,425 70	511 99	1,245 70	2,374 80
Bath	2,436 11	2,854 33	1,459 21	3,031 03	68 32	5,487 30		800 16	1,623 29	1,938 25
Barnstable	223 84		14,974 41			109 27		13,722 74	226 00	1,140 24
Burlington, Iowa				495 71		495 71				
Boston and Charlestown	2,179,370 67	10,602,157 60	105,250 53	906,977 99	101,668 85	8,081,823 70	125,853 15	1,266,307 20	515,311 38	3,906,130 21
Brazos de Santiago	31,511 96	32,126 37	378,327 05	594,789 44	237 41	1,447 00	4,656 32	1,024,615 20		6,273 71
Chicago	113,696 36	612,655 87	32,938 16	29,383 22	18,026 86	676,950 78	7,995 35	307 08	14,227 96	117,219 30
Champlain				178,387 14			177,415 59	971 55		
Cuyahoga	7,170 66	18,042 37	6,186 80	5,892 31	35 72	22,579 00	240 39	2,248 30	352 90	11,907 21
Charleston	1,828 87	15,690 82	1,966 52	1,169 48	77 19	10,805 16		13 20		9,914 52
Castine	663 87	804 15	325 66		1 10	307 95	99 36	1,192 69	04	194 74
Cincinnati	27,014 92	27,390 07	20,366 50	30,621 36	1,028 35	87,644 13			77 15	18,699 92
Cape Vincent				7,056 39			744 90	6,311 49		
Cairo				21,307 45	1,922 70	23,230 15				
Corpus Christi	8,280 43	42,806 21	72,994 66	922 20	45 27	2,151 65		122,812 20	32	84 60
Detroit	25,197 44	65,586 70	27,605 23	1,072,391 31	252 96	69,925 26	126,429 77	969,014 92	183 70	25,481 99
Delaware	2,155 26		10,737 85	7,587 00	11 00	10,787 15	7,587 00		1 87	2,115 09
Duluth	47,016 15			189,796 35	834 69	9,181 57	5,315 00	189,796 35	927 43	32,426 84
Evansville				496 53	14 20	510 73				
Erie	5,814 60	31,394 02		18,775 07		27,413 73	22,570 26			
Frenchman's Bay	284 00		632 97	111 52	26	15 02		816 94	3 24	294 15
Fall River				84,255 05		84,255 05				
Genesee	2,360 08	3,607 82	1,536 28	5,636 16	60 31	8,820 43	3,607 82			792 40
Gloucester	10,018 20	40,095 37	3,560 38	53 12	164 16	1,774 29	532 78	40,697 49	1,040 14	9,846 53
Georgetown, D. C	3,061 30		3,486 91	408 08	98 99	2,498 00			223 80	4,333 48
Galveston	43,651 63	78,573 25	2,392 21	8,651 46	1,097 59	27,500 00	649 47	76,771 57	155 45	19,289 65
Huron				343,337 32		408 14	35,767 03	307,162 15		
Key West	87,939 25	175,075 10		20,146 83	331 45	215,418 24	19,855 69	6,304 94	5 95	42,807 81
Kennebunk	2,080 36		535 53	66 24				66 24	2,080 36	535 53
Louisville	50,535 87	4,274 48	5,164 70	5,593 88	181 57	62,083 38	638 40		186 45	2,842 27
La Crosse				103 90		103 90				
Milwaukee	4,204 78	3,906 87	1,606 30	9,706 03	53 14	15,901 26	138 80		63 97	3,373 78
Mobile	8,479 51	14,350 52	1,303 23	9,429 01	1 65	16,893 36	7,855 81	397 20	185 04	8,232 51

Middletown	3,458 58		7,205 21	196 21		7,092 31				3,696 69
Miami	4,307 28	1,591 17	2,771 65	5,700 08	113 11	6,682 44	5,062 28		199 60	1,628 77
Memphis	29,115 01		4,171 17	8,088 53	1,114 42	29,068 70				13,360 43
Montana and Idaho				1,960 60			1,960 60			
Marblehead			314 16	77 28				391 44		
Minnesota	46 74		415 00	52,032 52	4 67	7,446 39	621 96	44,428 58		
Niagara				707,016 76			135,865 84	571,150 92		
New Haven	27,950 18	376,527 96	4,413 79			330,649 02	28,448 20	1,229 90		48,564 81
New London	12,234 01	79,919 91	935 39	4,892 94	1 48	69,082 69	1,259 22	4,185 27	76 14	23,380 41
Newburyport	18,769 15	97,295 61	528 04	322 56		60,641 84		712 92	3,229 89	52,330 71
New Bedford	1,189 32	2,238 60	5,897 50	6,632 27		7,587 20	4,555 49	1,906 00		1,909 00
Norfolk and Portsmouth	5,005 87	4,903 85	2,260 44	3,652 25	7 59	9,987 16			2 83	5,840 01
Nashville	975 50			3,738 18	4 98	4,102 28			616 38	
New Orleans	609,978 51	779,716 30	5,923 14	1,328,977 88	35,087 12	738,636 31	1,376,358 72	95,441 84	82,276 27	466,909 81
Newark				176 24		176 24				
New Albany	805 85									805 85
New York*	17,885,353 48	25,319,901 67	432,001 18	2,612,913 99	603,039 94	30,153,873 99	405,586 78	4,021,754 83	908,251 24	11,369,743 42
Oswego	8,759 63	434,223 43	6,522 21	79,128 45		163,892 46	329,672 95	8,374 46		6,783 85
Oswegatchie	4,601 91	8,808 61		11,602 59	8 32	6,200 61	8,778 09	3,152 60	60 11	6,830 02
Omaha				1,087 69		1,087 69				
Providence	12,780 61	43,737 16	47,148 25	5,083 70	202 21	62,637 56	29,182 90		1,472 57	15,748 90
Passamaquoddy	545 82	4,370 16	1,030 02	109,788 61		142 31	27,258 48	86,401 17	821 60	1,111 05
Philadelphia†	1,141,958 70	2,184,001 14	33,407 20	94,420 89	54,829 53	2,611,930 17	36,116 26	15,664 32	65,316 74	779,583 97
Portsmouth, N. H	627 38	1,108 24	1,735 45	752 46	31 31	1,557 64		1,802 92		924 28
Portland and Falmouth	70,841 06	303,998 17	36,288 33	8,720,099 83	246 61	268,865 82	251,756 08	8,530,590 21	5,932 11	74,529 78
Petersburgh	1,302 77			504 51	125 43	1,884 30				48 41
Plymouth	19,103 12		14,304 69	691 44		22,336 24		691 44	55 02	11,015 95
Pittsburgh	15,961 26	2,455 17	20,646 68	8,136 64	13 53	18,946 02				28,266 66
Puget's Sound				199 80				199 80		
Richmond	3,410 03	975 68		5,665 33	53 63	9,844 77			259 90	
San Francisco	1,415,560 17	3,745,089 87	76,604 34	589,073 89	45,833 89	3,695,655 41	74,210 79	638,521 95	220,587 56	1,243,386 45
Salem and Beverly	5,831 52	1,783 32	21,067 31	467 47	223 21	23,474 04		3,498 49	223 21	2,177 09
Savannah	676 38	4,744 53	1,148 50	1,648 97	133 16	5,569 06			71 99	2,710 49
Saint Louis	135,622 05	35,627 65	339,734 27	662,705 41	2,440 09	1,051,171 95	26,074 76		1,462 01	97,420 75
Saluria		14,561 85	592 73	463 82	13 96	558 89		15,073 47		
Sandusky				139 25		139 25				
St. John's	167 50			333 00				333 00	167 50	
Stonington				56 32				56 32		
Selma	3,805 53									3,805 53
Vermont	6,748 92	4,646 80		2,152,886 99	223 49	4,777 23	290,549 21	1,862,488 05	8 58	6,683 13
Wilmington, N. C	1,101 60				24 17	796 49				329 28
Wheeling				725 84		725 84				
Wiscasset	454 41	1,297 41	379 71		1 54	16 90	27 65	1,803 80	8 92	275 80
Waldoborough				1,011 83		698 16		313 67		
Willamette	27,043 15	65,063 77	7,691 95	15,426 45	353 91	73,443 71	485 02	3,148 56	26 12	38,475 82
Total	24,890,696 50	49,790,856 76	1,868,325 02	21,086,151 18	999,512 54	53,071,251 28	3,689,634 75	20,116,513 69	2,163,090 85	19,595,051 43

* To February 28, 1875.

† To March 31, 1875.

Office of COMMISSIONER OF CUSTOMS, *November* 3, 1875.

H. A. LOCKWOOD,
Acting Commissioner.

REPORT OF THE FIRST AUDITOR OF THE TREASURY.

TREASURY DEPARTMENT,
First Auditor's Office, October 11, 1875.

SIR: I have the honor to submit the following statement of the business transactions of this Office for the fiscal year ending June 30, 1875:

Accounts adjusted.	No. of accounts.	Amount
RECEIPTS.		
Collectors of customs, for duties on merchandise and tonnage received	1,382	$156,779,427 42
Collectors of customs, for fees received under the steamboat act	1,035	250,933 44
Fines, penalties, and forfeitures	684	161,283 95
Marine-hospital money collected	1,600	344,513 60
Official emoluments of collectors, naval officers, and surveyors received	1,266	1,285,738 50
Moneys received on account of deceased passengers	34	670 00
Moneys received from sales of revenue-cutters	4	50,205 49
Moneys received from wages of seamen forfeited	8	459 03
Moneys received from sale of old material	52	179,348 23
Moneys received from internal and coastwise commercial-intercourse fees	1	2 75
Moneys received from Pacific Railroad Companies for accrued interest on bonds	12	851,164 41
Treasurer of the United States for money received	5	925,572,230 77
Miscellaneous receipts	784	862,658 71
Mints and assay-offices	198	57,981,663 50
Total	7,065	1,144,320,298 80
DISBURSEMENTS.		
Expenses of collecting the revenue from customs	1,700	8,734,775 69
Official emoluments of collectors, naval officers, and surveyors	1,266	1,935,185 49
Distribution of fines, penalties, and forfeitures	164	160,341 35
Excess of deposits refunded for unascertained duties	360	1,956,315 72
Debentures, drawbacks, bounties, and allowances	149	1,445,133 39
Light-house establishment	588	1,244,102 89
Marine-hospital service	1,039	395,119 40
Revenue-cutter disbursements	476	851,973 35
Additional compensation to collectors, naval officers, and surveyors	3	391 37
Compensation in lieu of moieties	298	64,137 41
Duties illegally exacted, fines remitted, judgments satisfied, and net proceeds of unclaimed merchandise paid	506	265,608 37
Drawbacks under Chicago fire relief act	21	109,907 61
Judiciary expenses, embracing accounts of United States marshals, district attorneys, commissioners, and clerks, rent of court-houses, support of prisoners, &c	2,445	3,321,053 29
Mints and assay-offices	198	62,054,146 23
Territorial accounts, embracing salaries of officers, and legislative and contingent expenses	68	80,012 27
Salaries of the civil list paid directly from the Treasury	1,290	567,228 83
Disbursements on account of captured and abandoned property	3	1,312 41
Defense of suits for seizure of captured and abandoned property	74	40,803 79
Refunding proceeds of cotton unlawfully seized	13	36,172 40
Mining statistics	3	8,716 01
Treasurer of the United States for general expenditures	5	903,465,126 38
Salaries and mileage of Senators	2	451,317 30
Salaries of officers of the Senate	4	135,893 50
Contingent expenses of the Senate	47	210,271 54
Salaries and mileage of Members and Delegates of the House of Representatives	2	3,856,817 22
Salaries of officers of the House of Representatives	9	251,148 44
Contingent expenses of the House of Representatives	47	310,155 50
Salaries, Congressional Library	8	43,107 10
Salaries, Congressional Printer	4	14,814 00
Salaries of employés of Executive Mansion	4	14,925 00
Salaries of Metropolitan police	6	208,314 76
Salaries of officers and employés of independent treasury	54	325,968 36
Contingent expenses independent treasury	49	23,957 25
Contingent expenses Congressional Printer	5	1,221 57
Disbursing clerks, for salaries of the Departments of the Government at Washington	290	5,662,100 22
Contingent expenses of said Departments	234	377,245 18
Standard weights and measures	1	3,631 72
Survey of the coasts of the United States	30	775,915 30
Redemption of the public debt, including principal, premium, and interest	24	60,045,117 64
Payment of interest on the outstanding public debt	224	100,209,897 49
Redemption of Treasury-notes, under various acts	76	128,385 12

Accounts adjusted.	No. of accounts.	Amount.
DISBURSEMENTS—Continued.		
Temporary-loan accounts and bounty-land scrip	3	$75,515 13
Redemption of certificates of indebtedness, and coin and currency certificates of deposit	38	150,239,400 00
Re-imbursement of the Treasurer of the United States for legal-tender notes and fractional currency destroyed	28	138,594,361 36
Public printing and binding, lithographing, engraving, &c	76	1,008,139 99
Construction of court-houses and post-offices	105	1,270,867 99
Construction of custom-houses	138	1,070,623 97
Construction of appraisers' stores	6	68,080 65
Construction of marine-hospitals	8	55,395 04
Construction of branch mints	23	246,911 15
Construction of light-houses	284	781,178 17
Fuel, lights, and water for public buildings	914	327,846 92
Heating-apparatus for public buildings	38	79,635 25
Furniture and repairs of same for public buildings	51	211,899 20
Repairs and preservation of public buildings	134	141,282 54
Purchase of land for public buildings	6	814,037 12
Vaults, safes, and locks	7	107,671 27
Plans, photographs, &c	6	6,247 48
Custodians and janitors of public buildings	6	80,984 26
Supervising and local inspectors of steam-vessels, for traveling and incidental expenses, &c	337	201,811 98
Government Hospital for Insane, current expenses	3	128,658 25
Government Hospital for Insane, erection of buildings	2	34,626 32
Columbia Institution for Deaf and Dumb, current expenses	3	33,058 97
Columbia Institution for Deaf and Dumb, erection of buildings	3	22,827 05
Columbia Hospital for Women, current expenses	2	13,905 57
Columbia Hospital for Women, grounds	2	8,497 80
Expenses of Board of Health, District of Columbia	1	31,570 00
Preserving life and property from shipwreck	118	123,761 40
Children's Hospital, District of Columbia	1	5,000 00
Maryland Institute for the Blind	3	2,141 66
Construction of penitentiaries	12	8,827 43
Bureau of Engraving and Printing	28	1,470,489 61
Public buildings and grounds	51	327,906 17
Capitol extension and grounds	10	254,930 39
Reform School, buildings and grounds	2	31,772 29
Reform School, contingent expenses	6	16,598 22
Freedmen's Hospital	4	37,608 19
Department postage	8	81,898 61
Annual repairs United States Capitol	5	57,907 40
Engine-house near Capitol	4	9,991 37
Purchase of law-books and reports for Attorney-General's Office	5	13,229 00
Salaries, &c., Department of Agriculture	5	78,104 51
Contingent expenses, Department of Agriculture	25	39,679 21
Publishing report of Commissioner of Agriculture	2	45,751 90
Purchase of seed, &c., Department of Agriculture	25	75,379 59
Special distribution of seed in Kansas	2	30,000 00
Expenses national loan	16	371,172 12
Construction, equipment, and repair of revenue-vessels	123	181,365 03
Detection of counterfeiters and prosecution of crimes	18	192,254 06
Geological surveys, &c	18	137,000 00
Two months' additional pay to discharged clerks	2	31,649 10
Salaries, &c., Southern Claims Commission	4	24,175 82
Purchase of books for Library of Congress	34	65,290 77
Fish-culture	28	39,309 20
Statistical atlas, maps, &c	7	25,464 48
Rents of buildings for official use	15	67,576 31
Judgments of the Court of Claims paid	706	577,463 74
Outstanding liabilities paid	145	13,929 83
Cotton-claims paid	220	836,448 84
Expenses printing, &c., United States and national currency	62	506,439 78
Warehouse and bond accounts	1,523	
Miscellaneous accounts	834	9,532,580 47
Total	17,994	1,491,427,101 07

	Number.
Reports and certificates recorded	12,860
Letters written	2,282
Letters recorded	2,282
Acknowledgments of accounts written	14,174
Powers of attorney for collecting interest on the public debt registered and filed	4,149
Requisitions answered	874
Judiciary emolument accounts registered	548

In submitting this report I beg leave to ask the attention of the Secretary to the statement made in my last annual report, in relation to the growth of the business of this Office.

The number of accounts adjusted during the last fiscal year exhibits an increase greater than in any previous year. To meet the demands thus made upon the Office, I have to request that its permanent clerical force may be increased three clerks of the third class.

I am gratified in being able to commend the clerks and employés of the Office generally for promptness and fidelity in the performance of their official duties.

Respectfully submitted.

D. W. MAHON,
Auditor.

Hon. B. H. BRISTOW,
Secretary of the Treasury.

REPORT OF THE SECOND AUDITOR OF THE TREASURY.

TREASURY DEPARTMENT,
Second Auditor's Office, Washington, D. C., November 1, 1875.

SIR: I have the honor to submit the following report, showing, in detail, the business transacted in the Office during the fiscal year ending June 30, 1875:

BOOK-KEEPERS' DIVISION.

Requisitions registered, journalized, and posted.

On what account drawn.	No.	Amount.
DEBIT REQUISITIONS.		
Payments on account of Indian Department	1,816	$8,609,371 19
Payments on account of Pay Department		11,847,099 37
Payments on account of Ordnance Department		1,787,079 23
Payments on account of Medical Department		257,378 91
Payments on account of Quartermaster's Department		21 98
Payments from appropriations under control of the Adjutant-General		131,792 30
Payments from appropriations under control of the Secretary of War		167,816 72
Payments from appropriations under control of the General of the Army	1,109	5,000 00
Payments to the National Home for Disabled Volunteer Soldiers		911,505 12
Payments to the Soldiers' Home		311,488 51
Payments to the Treasurer of the United States on account of outstanding liabilities and internal-revenue tax		1,068 85
Payments under special acts of relief by Congress		10,730 08
Transferring amounts from appropriations found to be chargeable to such as were entitled to credit on the books of the Third Auditor's Office		130,376 95
Total debits	2,925	24,170,729 30
CREDIT REQUISITIONS.		
Deposits in favor of the Indian Department	51	$224,543 42
Deposits in favor of the Pay Department		868,305 66
Deposits in favor of the Ordnance Department		30,583 98
Deposits in favor of the Medical Department		1,078 95
Deposits in favor of the Adjutant-General's Department		6,303 25
Deposits in favor of the Quartermaster's Department	464	24,593 34
Deposits to the credit of appropriations under control of the Secretary of War		30,480 00
Counter-requisitions transferring amounts to appropriations entitled to credit on the books of the Second Auditor's Office, from appropriations found to be chargeable on the books of the Third and Fifth Auditors' Offices		37,400 40
Total credits	515	1,223,289 00
Deducting the credits from the debits shows the net amount drawn out to be		22,947,440 30

Appropriation-warrants—Continued.

On what account drawn.	No.	Amount.
APPROPRIATION WARRANTS.		
Credit.		
In favor of appropriations of Indian Department		$12,540,412 24
In favor of appropriations of Pay Department		14,480,563 04
In favor of appropriations of Ordnance Department		1,000,776 36
In favor of appropriations of Medical Department		270,927 32
In favor of appropriations of Adjutant-General's Department		193,466 28
In favor of appropriations under control of Secretary of War		231,555 35
In favor of appropriations under control of the General of the Army		5,000 00
In favor of appropriations of Quartermaster's Department		1,335 56
Under special acts of relief by Congress		15,189 23
Total credits		29,365,025 38
Debit.		
Transfer and surplus fund warrants, Indian Department		$2,035,123 21
Transfer and surplus fund warrants, War Department		32,422,272 71
Total debits		34,457,395 92

Condensed balance-sheet of appropriations.

	War.	Indian.
Credit.		
Balance to the credit of all appropriations on the books of this office, June 30, 1874	$34,459,437 36	$4,874,266 18
Amount credited by appropriation warrants during fiscal year ending June 30, 1875	16,894,613 14	12,540,412 24
Amount credited by deposit and transfer requisitions during same period	998,745 58	224,543 42
Amount credited through Third Auditor's Office to appropriations used in common by both offices	1,402,013 81	.....
Total	53,774,809 89	17,639,221 84
Debit.		
Amount debited to appropriations by transfer and surplus fund warrants, during fiscal year ending June 30, 1875	32,452,272 71	2,035,123 21
Amount drawn from appropriations by requisitions during same period	15,561,358 11	8,609,371 19
Amount drawn through Third Auditor's Office from appropriations used in common by both offices	1,501,690 38	.....
Balance remaining to the credit of all appropriations on the books of this office, June 30, 1875	4,289,488 69	6,994,727 44
Total	53,774,809 89	17,639,221 84

Sixty-two transcripts of accounts of officers charged with overpayments were prepared for suit; six hundred and fifty-one certificates of non-indebtedness of officers having claims against the United States were given for use in this and the Third Auditor's office, and fourteen hundred and fifteen letters were written.

PAYMASTERS' DIVISION.

The following is the record of accounts examined, settlements made, &c., in this division:

Paymasters' accounts audited and reported to the Second Comptroller	490
Paymasters' accounts closed	34
Miscellaneous settlements made	776
Draft-rendezvous accounts audited and reported	16
Total	1,316

The amount involved in the above accounts and settlements was $16,279,859.10, as follows:

Paymasters' accounts	$14,937,714 29
Fines, &c., paid to National Home for Disabled Volunteer Soldiers from July 1, 1874, to March 27, 1875	987,476 44
Fines, &c., paid to the Soldiers' Home	179 608 22

Amount transferred to the credit of the Subsistence Department on the books of the Third Auditor's Office, on account of tobacco furnished to enlisted men	$98,646 17
Amount transferred to the credit of the Quartermaster's and Subsistence Departments on account of transportation, subsistence, and quartermaster's stores	2,694 90
Charges to officers on account of double payments	70,914 08
Charges to officers and enlisted men for overpayments	11,459 77
Amount of double payments refunded	4,540 42
Amount of overpayments refunded	5,204 48
Amount erroneously charged to officers, now credited	29,477 45
Amount of lost checks paid	415 00
Amount transferred to the books of the Treasurer of the United States on account of outstanding liabilities and miscellaneous receipts	151,063 63
Miscellaneous payments	644 25
Total	16,279,859 10

The accounts reported as closed were adjusted as follows:

In twenty-two cases there were balances due the United States, amounting to $16,331.06, of which $13,971.41 was recovered by suit; and in twelve cases the United States were indebted to the paymasters to the amount of $4,658.22, which was paid by requisition on the Treasury.

Twenty-one accounts have been prepared for suit, the amount involved aggregating $18,810.84.

The act of March 3, 1865, providing for the payment to the National Home for Disabled Volunteer Soldiers of court-martial fines, forfeitures by desertion, &c., having been repealed by the act of March 3, 1875, the special examination of paymasters' accounts, instituted in November, 1869, to ascertain the amounts due, was discontinued in March last, and no payment has been made to said home since the 27th of that month.

The number of paymasters' and draft-rendezvous accounts on hand June 30, 1874, was	194
Paymasters' accounts received during the year	457
Total	651
Paymasters and draft-rendezvous accounts examined and reported to the Second Comptroller	506
Paymasters' accounts on hand June 30, 1875	145

MISCELLANEOUS DIVISION.

Accounts on hand June 30, 1874	1,092
Accounts received during the year	2,038
Total	3,130
Accounts settled during the year	2,274
Accounts on hand unsettled June 30, 1875	856

The amount of disbursements involved in the 2,264 settlements was $4,242,264.99, pertaining to the following appropriations:

To appropriations of the Ordnance Department	$2,717,710 51
To appropriations of the Medical Department	300,733 54
To appropriations of the Adjutant-General's Department, including regular and volunteer recruiting, and Freedmen's branch of the War Department	272,601 49
To appropriations of the Pay-Department, viz, pay of the Army, pay of two and three year volunteers, bounty, &c	810,284 21
To appropriations of the Quartermasters' Department	8,348 91
To expenses of the Commanding General's Office	3,947 96
To appropriations made by special acts of relief	11,196 67
To appropriations under control of the Secretary of War	117,441 70
Total	4,242,264 99

In continuing the compilation of a complete record of payments to officers of the regular and volunteer forces; 834 paymasters' accounts have been examined for the requisite data, and 288 cases of double payments were discovered, and charges raised against the payees, 1,064 miscellaneous inquiries were answered, and 2,072 letters written.

INDIAN DIVISION.

	Money accounts.	Property returns.	Claims.
Accounts, returns, and claims on hand June 30, 1874	691	842	24
Accounts, &c., received during the year	361	162	1,664
Total	1,052	1,004	1,688
Accounts, &c., disposed of during the year	429	205	1,678
Accounts, &c., on hand unsettled June 30, 1875	623	799	10

Amount involved in money accounts audited	$1,610,341 70
Amount involved in claims settled	4,422,865 55
Total	6,033,207 25

In my last report reference was made to the extra work devolving upon this division in consequence of the large increase in the number of Indian claims referred to this Office for payment by requisition on the Treasury. During the fiscal year ending June 30, 1874, 424 claims were received, upon which $3,050,552.94 was drawn from the Treasury. In the last fiscal year the number received was 1,664, and the amount paid out $4,422,865.55, showing an increase of $1,372,312.61 in the amount disbursed, and 540 in the number of claims. In nearly every case each claim required a separate statement and report, while in the consolidated quarterly accounts of agents one statement and report will cover any number of vouchers.

The falling off in the number of money-accounts of agents, of which 361 were received, against 520 in the previous fiscal year, is mainly attributable to the abolishment, under the act of February 14, 1873, of four superintendencies, which embraced upwards of twenty agencies. All the superintendents rendered large quarterly accounts, which are now included in the agency accounts—so that while the number of accounts has diminished, the volume has increased.

The miscellaneous work of this division included the compilation of two annual reports to Congress, of 1,200 folio pages; reports and copies of documents for the Commissioner of Indian Affairs and the Second Comptroller, and 2,248 letters.

During the month of June three clerks were engaged making transcripts of accounts for suit, under the direction of the Second Comptroller. In this connection, I would state that the accounts of Indian agents and superintendents who are no longer in the service are being closed up as rapidly as possible, suit being instituted against all delinquents.

PAY AND BOUNTY DIVISION.

The following tabular statements exhibit in detail the operations of the two branches of this division during the year:

EXAMINING BRANCH.

Claims in cases of white soldiers.

Date.	Additional bounty under act July 28, 1866, and amendments.										Arrears of pay and original bounty.									
	Original claims.					Suspended claims.				Total number of claims examined.	Number of letters written.	Original claims.					Suspended claims.					
	Whole number examined.	Number found correct.	Number found incomplete and suspended.	Number rejected.	Number of duplicate applications found	Whole number examined.	Number completed by additional evidence received.	Number again suspended; additional evidence insufficient.	Number rejected.			Whole number examined.	Number found correct.	Number found incomplete and suspended.	Number rejected.	Number of duplicate applications found.	Whole number examined.	Number completed by additional evidence received.	Number again suspended; additional evidence insufficient.	Number rejected.	Total number of claims examined.	Number of letters written.
1874.																					
July	267	1	208	2	56	889	81	584	224	1,083	1,241	510	2	372	2	134	2,079	202	1,468	409	2,589	3,071
August	238	....	174	3	61	790	122	520	148	1,028	1,192	536	3	399	3	131	1,613	192	1,139	282	2,149	2,512
September	239	2	186	....	51	659	115	444	100	898	2,775	512	5	263	2	142	2,157	218	1,469	470	2,669	1,092
October	206	1	146	25	34	463	62	320	81	669	744	458	7	314	....	137	1,652	251	1,092	309	2,110	2,223
November	194	3	143	3	45	594	96	385	113	788	854	410	6	375	....	29	1,497	201	1,072	224	1,907	2,009
December	329	4	263	2	60	676	115	451	110	1,005	748	738	2	543	1	192	1,948	231	1,355	362	2,686	2,946
1875.																						
January	456	5	345	3	103	786	114	542	130	1,242	1,230	939	1	740	3	195	1,730	181	1,502	296	2,078	2,717
February	108	3	73	....	32	1,256	147	933	176	1,364	1,304	364	3	196	....	165	2,351	258	1,653	460	2,715	3,303
March	32	2	4	1	25	701	149	513	129	823	979	724	4	532	1	187	2,761	267	1,915	579	3,485	3,607
April	22	8	5	....	9	360	79	246	35	382	343	588	5	442	....	141	2,533	204	1,574	755	3,121	4,092
May	15	1	5	....	9	252	47	188	17	267	339	459	3	346	....	110	2,966	190	2,174	602	3,425	3,526
June	13	2	4	....	7	571	46	433	92	584	479	518	2	360	....	156	2,556	191	2,223	142	3,074	3,495
Total	2,119	32	1,556	39	492	8,087	1,173	5,550	1,355	10,133	12,228	6,756	43	4,982	13	1,719	25,832	2,586	18,376	4,890	32,608	34,663

Bounty under act of April 22, 1872.

Date.	Original claims.					Suspended claims.				Total number of claims examined.	Number of letters written.
	Whole number examined.	Number found correct.	Number found incomplete and suspended.	Number rejected.	Number of duplicate applications found.	Whole number examined.	Number completed by additional evidence received.	Number again suspended; additional evidence insufficient.	Number rejected.		
1874.											
July	57	2	53	1	1	225	46	156	23	282	309
August	56	1	50	2	3	168	37	107	24	224	255
September	34	3	28	3	.....	221	37	165	49	315	402
October	23	4	13	4	2	90	23	52	15	113	138
November	21	5	14	1	1	143	43	77	23	164	153
December	22	2	16	2	2	187	29	130	28	209	214
1875.											
January	16	1	14	.....	1	101	22	53	26	117	164
February	6	3	.....	.....	3	170	33	120	17	170	194
March	18	2	16	.....	.....	229	29	165	35	247	246
April	26	3	21	.....	2	253	14	189	50	279	294
May	13	2	8	.....	3	248	38	150	60	261	273
June	14	1	9	.....	4	146	30	102	14	160	144
Total	306	29	242	13	22	2,241	381	1,496	364	2,547	2,786

Claims in cases of colored soldiers, including both arrears of pay and bounties.

Date.	Original claims.					Suspended claims.				Total number of claims examined.	Number of letters written.
	Whole number examined.	Number found correct.	Number found incomplete and suspended.	Number rejected.	Number of duplicate applications found.	Whole number examined.	Number completed by additional evidence received.	Number again suspended; additional evidence insufficient.	Number rejected.		
1874.											
July	212	2	110	21	70	817	80	698	39	1,029	1,500
August	131	5	54	2	70	850	85	554	211	981	1,000
September	58	6	49	3	.....	471	71	302	98	529	605
October	81	4	74	1	2	515	80	250	185	596	1,120
November	43	8	30	2	3	511	91	254	166	554	251
December	112	7	49	2	54	642	111	300	231	754	283
1875.											
January	112	5	72	.....	35	325	72	230	23	437	482
February	116	4	50	1	61	387	72	262	53	503	453
March	158	2	84	4	68	550	75	420	55	708	719
April	143	8	61	2	72	531	76	426	29	674	660
May	133	6	59	1	67	601	54	441	106	734	560
June	120	5	51	5	59	585	65	471	49	705	513
Total	1,419	62	743	44	570	6,785	932	4,608	1,245	8,201	7,946

Claims in cases of colored soldiers under act of March 3, 1873.

Date.	Original claims.					Suspended claims.				Total number of claims examined.	Number of letters written.
	Whole number examined.	Number found correct.	Number found incomplete and suspended.	Number rejected.	Number of duplicate applications found.	Whole number examined.	Number completed by additional evidence received.	Number again suspended; additional evidence insufficient.	Number rejected.		
1874.											
July	230	7	145	78	.....	323	56	200	67	553	1,001
August	70	10	46	12	2	228	40	169	19	298	747
September	70	5	47	13	5	690	53	600	37	760	100
October	99	5	88	3	3	664	79	557	28	763	367
November	57	.....	54	2	1	753	78	640	35	810	1,010
December	69	2	56	11	.....	693	51	590	52	762	1,016
1875.											
January	94	2	84	8	.....	693	48	607	38	787	1,011
February	80	3	66	11	.....	700	40	612	48	780	813
March	118	.....	92	26	.....	523	24	465	34	641	701
April	69	.....	61	8	.....	599	41	527	31	668	712
May	84	2	72	10	.....	488	44	420	24	572	637
June	66	.....	59	7	.....	380	31	320	29	446	600
Total	1,106	36	870	189	11	6,734	585	5,707	442	7,840	8,715

Summary.

1874.											
July	1,276	14	888	104	270	4,333	465	3,106	762	5,609	6,922
August	1,031	19	723	22	267	3,649	476	2,489	664	4,680	5,706
September	913	21	673	21	198	4,258	494	3,010	754	5,171	4,974
October	867	21	635	33	178	3,324	495	2,271	618	4,251	4,592
November	725	22	616	8	79	3,498	509	2,428	561	4,223	4,277
December	1,270	17	927	18	308	4,146	537	2,826	783	5,416	5,307
1875.											
January	1,617	14	1,255	14	334	3,644	437	2,694	513	5,261	5,604
February	674	16	385	12	261	4,864	550	3,560	754	5,538	6,067
March	1,050	10	728	32	280	4,854	544	3,478	832	5,904	6,952
April	848	24	590	10	224	4,276	414	2,962	900	5,124	6,101
May	704	14	490	11	189	4,555	373	3,373	809	5,259	5,405
June	731	10	483	12	226	4,238	363	3,549	326	4,969	5,231
Total	11,706	202	8,393	297	2,814	49,699	5,657	35,746	8,296	61,405	66,338

SETTLING BRANCH.

Claims in cases of white soldiers.

Date.	Additional bounty, act July 28, 1866.					Arrears of pay, &c., act July 22, 1861.				
	Number of claims.				Amount involved.	Number of claims.				Amount involved.
	Received.	Allowed.	Rejected.	Whole number disposed of.		Received.	Allowed.	Rejected.	Whole number disposed of.	
1874.										
July	271	86	16	102	$10,700 00	500	240	65	305	$36,595 85
August	236	49	8	57	6,100 00	520	130	9	139	20,627 26
September	225	151	11	162	14,800 00	509	195	36	231	31,142 35
October	196	152	7	159	17,499 68	516	294	12	306	35,308 56
November	189	118	9	127	12,237 32	487	217	65	282	29,145 94
December	630	101	8	109	11,240 00	798	271	45	316	36,534 07
1875.										
January	474	117	2	119	12,793 94	1,015	208	25	233	28,661 67
February	49	131	3	134	13,650 00	672	260	10	270	30,505 54
March	29	149	6	155	16,369 70	726	239	7	246	27,471 17
April	14	100	3	103	11,450 00	581	239	11	250	30,699 34
May	14	63	5	68	6,950 00	489	217	15	232	27,454 67
June	10	56	7	63	7,550 00	506	219	10	229	28,818 39
Total	2,339	1,273	85	1,358	141,340 64	7,319	2,729	310	3,039	362,964 81

Bounty claims, act April 22, 1872.

Date.	Number of claims.				Amount involved.
	Received.	Allowed.	Rejected.	Whole number disposed of.	
1874.					
July	47	31	3	34	$3,300 00
August	50	21	5	26	2,100 00
September	28	24	7	31	2,400 00
October	16	43	5	48	4,300 00
November	12	45	3	48	4,500 10
December	16	31	1	32	3,300 00
1875.					
January	14	18	2	20	1,800 00
February	7	20	.....	20	2,000 00
March	16	20	1	21	2,200 00
April	25	23	3	26	2,196 25
May	33	28	4	32	3,000 00
June	22	24	2	26	2,493 94
Total	287	328	36	364	33,590 29

18 Ab

Claims in cases of colored soldiers, including both arrears of pay and bounty.

Date.	Number of claims.				Amount involved.
	Received.	Allowed.	Rejected.	Whole number disposed of.	
1874.					
July	328	458	20	478	$52,927 55
August	249	270	10	280	32,543 81
September	299	244	18	262	31,822 80
October	297	268	21	289	39,625 60
November	336	290	14	304	40,538 80
December	325	261	9	270	41,302 40
1875.					
January	327	255	11	266	31,303 65
February	342	228	14	242	35,913 45
March	406	249	2	251	30,924 25
April	309	211	9	220	29,630 71
May	263	222	10	232	29,646 52
June	256	209	5	214	32,333 27
Total	3,637	3,165	143	3,308	443,513 00

Summary.

Date.	Number of claims.			Whole number disposed of.	Amount involved.	Number of letters written.	Number of certificates issued.
	Received.	Allowed.	Rejected and duplicates.				
1874.							
July	1,146	815	104	919	$109,523 40	1,597	.....
August	1,055	470	32	502	61,371 07	833	.....
September	1,061	614	72	686	80,165 15	448	.....
October	1,027	757	45	802	96,733 84	1,205	.....
November	924	670	91	761	86,422 19	890	.....
December	1,769	664	63	727	92,376 47	879	.....
1875.							
January	1,030	598	40	638	74,559 46	2,133	.....
February	1,070	639	27	666	82,068 99	793	.....
March	1,177	657	16	673	82,965 08	808	.....
April	930	573	26	599	76,976 30	798	.....
May	799	530	34	564	67,051 19	1,810	.....
June	794	508	24	532	71,195 60	930	.....
Total	13,582	7,495	574	8,069	981,408 74	13,124	.....

Consolidated statement showing the operations of the entire division during the fiscal year ended June 30, 1875.

Date.	Number of claims.			Whole number disposed of.	Amount involved.	Number of letters written.	Number of certificates issued.
	Received.	Allowed.	Rejected and duplicates.				
1874.							
July	1,146	815	1,240	2,055	$109,523 40	8,519	748
August	1,055	470	1,005	1,475	61,371 07	6,539	670
September	1,061	614	1,045	1,659	80,165 15	5,422	573
October	1,027	757	874	1,631	96,733 84	5,797	429
November	924	670	739	1,409	86,422 19	5,167	804
December	1,709	661	1,172	1,836	92,376 47	6,086	744
1875.							
January	1,830	598	901	1,499	74,559 46	7,737	708
February	1,070	639	1,054	1,693	82,068 99	6,860	552
March	1,177	657	1,160	1,817	82,965 08	7,060	620
April	930	573	1,160	1,733	76,976 30	6,899	627
May	799	530	1,043	1,573	67,051 19	7,215	545
June	794	508	588	1,096	71,195 60	6,161	644
Total	13,582	7,495	11,981	19,476	981,408 74	79,462	7,673

There were also made in this division thirteen settlements in favor of the Soldiers' Home, under the acts of March 3, 1851, and March 3, 1859, upon which $26,517.41 was paid, making the total number of settlements 7,508, and the total amount disbursed $1,007,926.15.

Number of claims under act of July 28, 1866, (white) on hand June 30, 1874	1,961
Number of claims for arrears of pay and bounty on hand June 30, 1874	12,387
Number of colored claims on hand June 30, 1874	9,793
Number of bounty-claims under act of April 22, 1872, on hand June 30, 1874	897
Total number of claims on hand June 30, 1874	25,038
Number of claims under act of July 28, 1866, (white) on hand June 30, 1875	1,186
Number of claims for arrears of pay and bounty on hand June 30, 1875	10,125
Number of colored claims on hand June 30, 1875	7,295
Number of bounty-claims under act of April 22, 1872, on hand June 30, 1875	538
Total number of claims on hand June 30, 1875	19,144

Condition of claims on hand.

Suspended, awaiting evidence to be filed by claimants or their attorneys	18,641
Ready for settlement June 30, 1875	350
Unexamined June 30, 1875	153
Total	19,144

PROPERTY DIVISION.

Number of property-returns on hand June 30, 1874	4,426
Number of property-returns received during the year	4,156
Total	8,582
Number of property-returns settled during the year	4,727
Number of property-returns remaining on hand June 30, 1875	3,855
Number of returns registered since last report	4,156
Number of letters written	2,672
Number of letters recorded	1,115
Number of certificates of non-indebtedness issued to officers of the regular and volunteer forces	365

Charges amounting to $9,782.80 were raised against officers for property not accounted for.

DIVISION OF INQUIRIES AND REPLIES.

Office making inquiry.	Inquiries on hand June 30, 1874.	Inquiries received during the year.	Inquiries disposed of.	Inquiries on hand June 30, 1875.
Adjutant-General	1,165	6,821	7,057	929
Paymaster-General	.....	604	589	15
Quartermaster-General	4	503	500	7
Commissary-General	2	240	228	14
Commissioner of Pensions	39	777	750	66
Third Auditor	253	2,239	2,231	261
Fourth Auditor	2	24	18	8
Second Auditor, (local bounty cases)*	391	208	599	.....
Second Auditor, (deserter cases)*	19,185	21,293	40,478	.....
Miscellaneous	41	734	748	27
Total	21,088	33,443	53,198	1,333

*Settlements in favor of the National Home for Disabled Volunteer Soldiers having been discontinued under the act of March 3, 1875, all the cases pertaining to that institution, viz: 41 local bounty and 32,899 deserter cases, which remained unanswered on March 31 were returned to the paymasters' division of this office, leaving the number of inquiries actually answered 20,258.

The miscellaneous work of this division was as follows:

Rolls and vouchers copied for the Adjutant-General	1,033
Rolls and vouchers copied for the Paymaster-General	14
Rolls and vouchers copied for preservation in this Office	30
Rolls and vouchers traced for preservation in this Office	1,186
Number of signatures compared	4,798
Number of cases briefed	14,970
Number of letters written	12,642
Affidavits, final statements, enlistment-papers, and other documents copied	1,525
Number of overpayments and double payments discovered	180
Amount of charges raised on account of overpayments, &c	$9,163 06
Amount recovered	$2,500 56

DIVISION FOR THE INVESTIGATION OF FRAUDS.

During the fiscal year 6,016 cases have been examined in this division, of which 859 have been disposed of as follows:

By prosecution, determination of questions involved, and recovery of money improperly paid	721
Cases rejected	138
Total	859

Abstracts of facts have been prepared in 260 cases; 165 have been arranged for the Department of Justice, and 5,575 letters have been written.

The number of cases on hand June 30, 1874, was	5,423
The number received during the year was	1,098
Total	6,521
The number of cases disposed of was	859
Leaving on hand June 30, 1875	5,662

These cases involve alleged fraud, forgery, unlawful withholding of moneys by attorneys, erroneous settlements, overpayments, &c., and are as follows:

Cases in which notice of fraud or wrong has been presented, subsequent to the allowance of the claims: white soldiers, 1,631; colored soldiers, 1,637	3,268

Unsettled claims: White soldiers, 575; colored soldiers 1,465	2,040
Charges against officers for pay overdrawn	354
Total	5,662

The following amounts have been recovered by suit and otherwise:

Amount recovered in cases of white soldiers and deposited in the Treasury: principal $11,487.80, interest $1,880.89	$13,368 69
Amount recovered by officers of the Freedmen's Branch, War Department, in cases of colored soldiers, and deposited in the Treasury	35,139 84
Amount secured by offset and stoppage	144 17
Amount secured by cancellation of check, and reclamation of Assistant Treasurer, New York City	200 00
Amount secured to claimants from attorneys withholding the same	1,472 63
Amount of judgments obtained and reported	3,174 23
Total	53,499 56

In my last annual report the increase of cases requiring investigation by this branch of the Office was accounted for by the fact that since the transfer of the Freedmen's Bureau to the War Department, frauds and malpractice had been discovered in the payment of claims by the sub-agents of the late Commissioner of the Bureau; and it was then presumed that the number would continue to increase until some definite action should be taken by superior authority to determine the civil liability of the bonded agents of the Bureau. Many cases then in the hands of the law-officers of the Government are yet *in statu quo* as regards action on the bonds, and it is perhaps advisable that they should remain so until the allegations as to non-payment, false vouchers, &c., shall have been fully inquired into by the different United States attorneys, and some definite conclusion arrived at as to the facts and the liability of the sureties.

The co-operation of the Solicitor of the Treasury and of the officers of the War Department having control of freedmen's affairs has been highly satisfactory, and with their further aid, together with the continued watchfulness of this Office, I anticipate still more beneficial results to the Department.

ARCHIVES DIVISION.

Number of new accounts received from the Paymaster-General		482
Number of paymasters' accounts on file awaiting settlement		77
Number of confirmed settlements received from the Second Comptroller and verified, briefed, and permanently filed:		
Paymasters'	270	
Indian	218	
Miscellaneous	2,531	
		3,019
Paymasters' accounts re-arranged		498
Miscellaneous accounts withdrawn for reference, &c., and returned to files		823
Vouchers withdrawn for the use of settling-clerks		14,789
Vouchers (paymasters' and miscellaneous) returned to settlements		45,978
Mutilated muster and pay rolls repaired and replaced in files		34,218
Number of letters written		776

REGISTRY AND CORRESPONDENCE DIVISION.

Number of letters written	21,923
Number of letters received	21,096
Number of letters referred to other Bureaus	1,667
Number of dead-letters received and registered	2,098
Number of letters recorded and indexed	1,716
Number of claims recorded, briefed, and registered	30,584
Number of miscellaneous vouchers received, stamped, and distributed	52,338
Number of letters (not included above) containing additional evidence in regard to claims received, briefed, and registered	12,486
Number of pay and bounty certificates examined, registered, and mailed	7,673
Number of pay and bounty certificates examined, registered, and sent to the Paymaster-General	4,408
Number of reports calling for requisitions sent to the War Department	439

The average number of clerks employed in the Office during the year was 183.

The customary statements and reports called for by law and the regulations of the Department were prepared and transmitted, as follows:

To the Secretary of the Treasury.—Annual report of the transactions of the Office during the fiscal year.

Monthly tabular statement showing the business transacted in the Office, and the number of accounts remaining unsettled.

Monthly report of absence from duty of employés, with reasons therefor.

Annual statement of the clerks and other persons employed in this Office during the fiscal year or any part thereof, showing the amount paid to each on account of salary, with place of residence, &c., in pursuance of section 11 of the act of August 12, 1842, and resolution of the House of Representatives of January 13, 1846.

To the Secretary of War.—Annual statement of disbursements from the appropriation for contingencies of the Army, prepared in detail for transmission to Congress, under the act of March 3, 1809.

To the Adjutant-General of the Army.—Monthly and annual statement of the recruiting-fund, and the appropriation for contingencies of the Adjutant-General's Department.

For convenience of reference I subjoin a consolidated statement of the business transacted in the Office during the fiscal year.

	On hand June 30, 1874.	Received during the year.	Disposed of during the year.	On hand June 30, 1874.	Amount involved in accounts audited and settlements made during the year.	Number of letters written.
Accounts and settlements.						
Paymasters'	194	457	506	145	14,837,714 29	2,536
Indian agents' disbursing accounts	691	361	429	623	1,610,341 70	
Indian agents' property accounts	842	162	205	799		2,248
Indian claims	24	1,664	1,678	10	4,422,865 55	
Bounty, arrears of pay, &c	25,038	13,582	19,476	19,144	981,408 74	79,402
Ordnance, medical and miscellaneous, including recruiting, bounty, &c., paid through the Freedmen's branch, War Department, &c	1,082	2,038	2,264	856	4,242,264 99	2,672
Clothing, camp and garrison equipage	4,426	4,156	4,727	3,855		2,672
Payments to the Soldiers' Home			25		206,125 63	
Payments to the National Home for Disabled Volunteer Soldiers			8		887,476 44	
Charges and credits to officers, transfers, &c			756		375,060 15	
Total	32,297	22,420	30,074	25,432	27,563,257 49	88,990

In addition to the number of letters above reported, 42,331 were written in the book-keeper's archives, and other divisions of the Office, making the total 131,321.

In closing this report, I cannot refrain from bearing testimony to the patient industry, the intelligence, and fidelity manifested by the clerks of this Office in the discharge of their official duties. With scarcely an exception their conduct entitles them to especial commendation.

I am, sir, very respectfully,

E. B. FRENCH,
Auditor.

REPORT OF THE THIRD AUDITOR OF THE TREASURY.

TREASURY DEPARTMENT,
Third Auditor's Office, September 15, 1875.

SIR: I have the honor to submit herewith the subjoined report of the operations of this Office for the fiscal year ended June 30, 1875.

The following statement shows, in tabular form, the number and amount of accounts received and settled, and the number and amount of unsettled accounts and claims on hand:

Description of accounts and claims.	Number of accounts remaining on hand June 30, 1874.	Number of accounts received during the year ending June 30, 1875.	Number of accounts settled in fiscal year ending June 30, 1875.		Number of accounts unsettled June 30, 1875.	
	Monthly and quarterly.	Monthly and quarterly.	Monthly and quarterly.	Amount involved.	Monthly and quarterly.	Amount involved.
Quartermasters' money	1,043	3,297	3,053	$15,809,441 21	387	$2,578,180 13
Quartermasters' property	282	3,525	3,294		513	
Commissaries' money	405	1,084	1,007	3,970,268 84	482	1,084,878 97
Pension agents' money	639	798	619	19,888,428 52	818	29,110,805 77
Engineers' money	59	216	202	9,494,059 36	73	3,630,170 45
Signal officers' money	13	47	49	478,864 52	11	91,748 88
Signal officers' property		1,164	1,018		146	
Claims for horses lost	5,068	883	471	89,060 65	5,480	981,810 64
Claims for steamboats destroyed	71	5	4	55,300 00	72	727,396 37
Oregon war-claims	815	47	92	11,265 24	770	62,497 92
Miscellaneous claims	11,571	7,116	7,714	3,455,870 81	10,973	5,140,911 59
State war-claims	10	5	5	86,513 60	10	3,332,893 21
Eight-hour claims, Quartermaster's Department		311	311	12,127 85		
Eight-hour claims, Engineer Department		194	194	6,565 49		
Montana war-claims		32	32	39,200 16		
Dakota war-claims		173	173	21,862 25		
Total	19,976	18,897	19,138	53,418,828 50	19,735	46,741,293 93

BOOK-KEEPER'S DIVISION.

The duty devolving upon this division is to keep the appropriation and money accounts of the Office. The average number of clerks engaged in this division during the period embraced in this report has been nine, and that number now constitutes its active force. The annexed statement (with the exception of appropriations for the Engineer Department, which are consolidated under the general head of "Sundry engineer appropriations,") shows the amount drawn out of certain of its appropriation accounts, and also the repayments made through this Office into the Treasury; and is a full exhibit of its financial operations for the fiscal year.

Statement showing the financial operations of the Third Auditor's Office during the fiscal year ending June 30, 1875.

	Advances to officers and agents during the fiscal year.	Claims paid during the fiscal year.	Transfers.			Special relief acts.	Total.
			Second Auditor's.	Third Auditor's.	Fourth Auditor's.		
Number of requisitions drawn by the Secretaries of War and of the Interior upon the Secretary of the Treasury in favor of sundry persons, 6,181, amounting to $57,268,040.79, paid in the manner herein set forth and out of the following appropriations, viz:							
Regular supplies of the Quartermaster's Department	$4,367,964 33	$101,623 64	$255 40	$819 27			$4,470,662 64
Incidental expenses of the Quartermaster's Department	1,165,887 49	184,121 24	263 62	1,168 28			1,351,440 63
Barracks and quarters	1,417,143 98	140,584 46		169 48			1,557,897 92
Transportation of the Army and its supplies	3,540,309 70	720,047 30	1,847 60	516 57			4,262,721 17
Transportation of officers and their baggage			35 00				35 00
Cavalry and artillery horses	316,655 93	13,653 00		360 00			330,668 93
Clothing of the Army	1,445,837 07	764 73					1,446,601 80
Preservation of clothing and equipage	30,000 00						30,000 00
National cemeteries	197,187 36	116 70					197,304 06
Head-stones for graves in national cemeteries	125,000 00						125,000 00
Construction and repair of hospitals	99,519 66						99,519 66
Contingencies of the Army	3,350 00	182 17					3,532 17
Purchase of stoves		15 00					15 00
Allowance for reduction of wages, (eight-hour law)	10,021 90						10,021 90
Expenses of sales of stores and materials		30 00					30 00
Military prison at Fort Leavenworth, Kans	25,000 00						25,000 00
Claims of loyal citizens for supplies, &c., (Southern Claims Commission)		1,265,170 40					1,265,170 40
Pay of Oregon and Washington volunteers, in 1855-'56		2,803 79					2,803 79
Services of Oregon and Washington volunteers, in 1855-'56		5,770 21					5,770 21
Rogue River Indian war		17,104 13					17,104 13
Refunding to States expenses incurred in raising volunteers, &c		139,958 32					139,958 32
Re-imbursing Ohio and Indiana for expenses, &c		11,218 96					11,218 96
Re-imbursing Kentucky for expenses, &c		35,490 65					35,490 65
Suppressing Indian hostilities in Territory of Montana	55,000 00						55,000 00
Suppressing Indian hostilities in Territory of Dakota	33,980 30						33,980 30
Supplying arms and munitions of war to loyal citizens			40,000 00				40,000 00
Use of Dudley Observatory		20,000 00					20,000 00
Relief of certain settlers upon Fort Randall military reservation		3,186 00					3,186 00
Construction of a post on the North Fork of the Loup River, Nebraska	50,000 00						50,000 00
Military bridge across North Platte River, near Fort Laramie	10,000 00						10,000 00
Winter-quarters for troops near Red Cloud and Whetstone Indian agencies	30,000 00						30,000 00

Military Academy, West Point, N. Y.	102, 835 00						102, 835 00
Signal service*	12, 500 00						12, 500 00
Observation and report of storms*	410, 325 00				$64 00		410, 389 00
Telegraph from Prescott to Camp Verde and Apache, Ariz.*	4, 000 00						4, 000 00
Construction of a telegraph on the frontier settlements of Texas*	100, 000 00						100, 000 00
Sundry engineer appropriations, (consolidated)	7, 691, 546 63	8, 676 00		11 00			7, 709, 233 63
Subsistence of the Army	3, 012, 481 51	20, 037 77	64, 006 37	12, 034 86			3, 108, 650 51
Army pensions	29, 611, 768 09	15, 643 65		12, 881 34			29, 640, 493 08
Commutation of rations to prisoners of war	4, 000 00						4, 000 00
Support of Bureau of Refugees, Freedmen, and Abandoned Lands				34, 513 61			34, 513 61
Horses and other property lost, (act March 3, 1849)		101, 540 03					101, 540 03
Relief of persons suffering from the overflow of the Mississippi River	200, 000 00						200, 000 00
Relief of persons suffering from the ravages of grasshoppers	141, 910 10			37 16			141, 947 26
Payment of Capt. James L. Fisk for protection of overland emigrants						$7, 862 37	
Payment of Louisville and Bardstown Turnpike Co., for construction of bridges						13, 600 00	
Payment of John B. Eugene, lieutenant Forty-third Wisconsin Infantry						42 42	
Relief of the Kentucky Agricultural and Mechanical Association						25, 000 00	
Relief of John Dold						1, 525 83	
Relief of Selden Connor						200 00	
Relief of Julius Greisenbach, of Waco, Tex						212 50	
Relief of Mrs. Louisa Eldis, of Sandusky, Ohio						691 83	
Relief of William R. Griffin						2, 325 00	66, 804 13
Relief of the heirs of Mary B. Belfield, of Virginia						173 33	
Relief of William Kerr, of Indiana						131 50	
Relief of N. H. Dunphee						6, 180 00	
Relief of John Fletcher, surviving partner of Fletcher & Powell						1, 399 35	
Relief of D. R. Haggard						4, 000 00	
Relief of Washington Crosland						2, 000 00	
Relief of John L. Williams						1, 460 00	
Total	54, 224, 224 05	2, 807, 939 05	106, 497 99	62, 511 57	64 00	66, 804 13	57, 268, 040 79

* Under the direction of the Signal Bureau.

PER CONTRA.

	Deposits.	Second Auditor's transfers.	Third Auditor's transfers.	Total.
The number of credit and counter requisitions drawn by the Secretaries of War and of the Interior on sundry persons in favor of the Treasurer of the United States is 725. On which repayments into the Treasury have been made during the fiscal year ending June 30, 1875, through the Third Auditor's Office, as follows	$1, 027, 411 38	$148, 893 63	$127, 321 72	$1, 303, 626 73

QUARTERMASTER'S DIVISION.

The accounts of quartermasters cover a wide range of money and property responsibility. The former embraces disbursements for barracks and quarters, hospitals, store-houses, offices, stables, and transportation of Army supplies; the purchase of Army clothing, camp and garrison equipage, cavalry and artillery horses, fuel, forage, straw, material for bedding, and stationery; payments of hired men, and of "per diem" to extra-duty men; expenses incurred in the pursuit and apprehension of deserters; for the burial of officers and soldiers; for hired escorts, expresses, interpreters, spies, and guides; for veterinary surgeons and medicines for horses; for supplying posts with water; and for all other proper and authorized outlays connected with the movements and operations of the Army not expressly assigned to any other Department.

Property purchased with the funds of the Quartermaster's Department is accounted for upon "returns" transmitted through the Quartermaster-General to this Office, (with the exception of "returns of clothing, camp and garrison equipage," which come under the supervision of the Second Auditor,) showing that the disposition made of it is in accordance with law and Army regulations.

	Money accounts.		Property returns.	Supplemental settlements.		
	Number.	Amount involved.	Property.	Property.	Money.	Amount involved.
On hand per last report	1,013	$3,709,310 37	282			
Received during the fiscal year	3,327	14,678,310 97	3,525	87	1,079	$9,096,283 58
Total	4,340	18,387,621 34	3,807	87	1,079	9,096,283 58
Reported during the fiscal year	3,953	15,809,441 21	3,294	87	1,079	9,096,283 58
Remaining unsettled	387	2,578,180 13	513			
Total	4,340	18,387,621 34	3,807	87	1,079	9,096,283 58

	Signal accounts.			Total.	
	Property.	Money.	Amount involved.	Number.	Amount involved.
On hand per last report		13	$137,043 58	1,338	$3,846,353 95
Received during the fiscal year	1,164	47	433,569 82	9,199	24,208,164 37
Total	1,164	60	570,613 40	10,537	28,054,518 32
Reported during the fiscal year	1,018	49	478,864 52	9,480	25,384,589 31
Remaining unsettled	146	11	91,748 88	1,057	2,669,929 01
Total	1,164	60	570,613 40	10,537	28,054,518 32

Number of letters written, 10,093; average number of clerks employed, 46 7/12; number of pages written, 19,816; number of vouchers examined, 273,103; number of claims examined under the eight-hour law, 311; involving $12,127.85.

The act of Congress, approved June 23, 1870, "to authorize the settlement of the accounts of officers of the Army and Navy," the provisions of which were extended till June 23, 1875, has proved to be a wise measure so far as regards the adjustment of the accounts of officers of

the Quartermaster's Department. As evidence of this fact, it may be stated that four years ago the force employed on this division was one hundred and thirty clerks, and it was estimated that with this force many years would be required to close up the accumulated work of the division unless some change in the transaction of its business was adopted. This change was made under the provisions of the act above referred to, and vigorous efforts were put forth to systematize the work. Less than four years have passed, and the work is practically accomplished. The working-force of the division has been reduced to forty-three clerks. Of the vast number of returns of quartermaster stores rendered during the war, the most of which were made up by volunteer officers, only ten remain unadjusted, and these, for various reasons, cannot be closed.

The accounts of all bonded delinquent officers are in course of adjustment, and are transmitted to the Second Comptroller for his action thereon, as rapidly as practicable. Suit is recommended to be brought against the sureties of the delinquent, if the Second Comptroller shall so direct, and steps taken to recover the amounts due the Government.

All claims arising under the second section of the act of Congress approved May 18, 1872, known as "the eight-hour law," have been promptly examined and adjusted. In every case where the claimant could be found, payment has been made. The amount disbursed to employés of the Quartermaster's Department has been much less than was originally estimated, amounting only to $23,562.41.

SUBSISTENCE DIVISION.

This division examines the accounts of all commissaries and acting commissaries in the Army, whose duties are to purchase the provisions and stores necessary for its subsistence, and to see to their proper distribution. These commissaries render monthly money-accounts, with proper vouchers for disbursements of the funds intrusted to them; together with a provision-return, showing the disposition of provisions and stores purchased or derived from other sources. These accounts are received through the Commissary-General of Subsistence, and are examined and audited in this division. The money-accounts and vouchers, together with a certified statement of the result of said examinations, are then referred to the Second Comptroller of the Treasury for revision. Upon their return from the Comptroller, with the settlement approved, the officers are notified of the result, and called upon to adjust or explain any omissions or errors that may have been discovered. The money and provision accounts, together with the vouchers and papers belonging thereto, are then placed in the settled files for future reference, and remain permanently in the custody of this Office.

	Money accounts.		Provision returns.
	No.	Amount involved.	
On hand per last report, June 30, 1874	405	$790,247 70	300
Received during fiscal year	1,084	4,264,900 11	1,084
Total	1,489	5,055,147 81	1,384
Audited during fiscal year	1,007	3,970,268 84	1,006
Remaining on hand June 30, 1875	482	1,084,878 97	378

Number of vouchers examined, 52,335; number of letters written, 894; number of "differences" written, 631; number of queries answered, 825; average number of clerks, 6½.

ENGINEER DIVISION.

This division is employed in the examination of accounts of the officers and agents of the Engineer Department, who, under direction of the Chief of Engineers of the Army, (except the superintendent of the Military Academy at West Point, whose disbursements are directed by the Inspector-General,) disburse moneys out of the various appropriations—now 248 in number—made from time to time by Congress, for works of a public nature, which may be classed under the following general heads, viz:

The purchase of sites and materials for, and construction and repairs of, the various fortifications throughout the United States.

Construction and repairs of roads, bridges, bridge-trains, &c., for armies in the field.

Surveys on the Atlantic and Pacific coasts.

Examination and surveys of the northern and western lakes and rivers.

Construction and repairs of breakwaters.

Repairs and improvement of harbors, both on sea and lake coasts.

Improvement of rivers and purchase of snag and dredge boats for the same; and

The expenses of the Military Academy at West Point.

The transactions of the division for the fiscal year are shown by the following statement, viz:

	Accounts.	
	Number of quarters.	Amount involved.
On hand per last report, (June 30, 1874)	59	$4,841,286 88
Received during the year	216	8,282,942 93
Total	275	13,124,229 81
Reported during the year	202	9,494,059 36
Remaining on hand June 30, 1875	73	3,630,170 45
Total	275	13,124,229 81

Several thousand "eight-hour" claims have been received and examined, and 194 settled, involving $6,565.49; also, many consolidated rolls prepared under this law, and a large amount of miscellaneous work done, which cannot well be reported in detail.

The property accounts of the officers of the Engineer Corps received during the year, and on file in this division, number 415.

Number of letters written, 2,004; number of clerks employed, 8.

STATE-CLAIMS DIVISION.

The duties of this division embrace the settlement, under the various acts and resolutions of Congress relating thereto, of all claims of the several States and Territories for the "Costs, charges, and expenses properly incurred by them for enrolling, subsisting, clothing, supplying, arming, equipping, paying, and transporting their troops employed in

aiding to suppress the recent insurrection against the United States;" also, of all claims arising out of Indian and other border invasions.

	Original accounts.		Suspended accounts.	
	No.	Amount.	No.	Amount.
On hand June 30, 1874	10	$990,760 54	49	$4,712,030 72
Received during the fiscal year	5	2,428,646 27	3	19,057 58
Total	15	3,419,406 81	52	4,731,088 30
Reported during the fiscal year	5	86,513 60	8	228,941 18
Balance remaining on hand June 30, 1875	10	3,332,893 21	44	4,502,147 12

	Montana war claims.		Dakota war claims.	
	No.	Amount.	No.	Amount.
On hand June 30, 1874				
Received during the fiscal year	32	$39,200 16	173	$21,862 25
Total	32	39,200 16	173	21,862 25
Reported during the fiscal year	32	39,200 16	173	21,862 25
Balance remaining on hand June 30, 1875				

Number of letters written during the year, 94; number of clerks employed during the year, 2.

CLAIMS DIVISION.

This division has the settlement of claims of a miscellaneous character, arising in the various branches of service in the War Department, and growing out of the purchase or appropriation of supplies and stores for the Army; the purchase, hire, or appropriation of water-craft, railroad stock, horses, wagons, and other means of transportation; the transportation contracts of the Army; the occupation of real estate for camps, barracks, hospitals, fortifications, &c.; the hire of employés; mileage, court-martial fees, traveling expenses, commutations, &c.; claims for compensation for vessels, railroad cars, engines, &c., lost in the military service; claims growing out of the Oregon and Washington War of 1855 and 1856, and other Indian wars; claims of various descriptions under special acts of Congress; and claims not otherwise assigned for adjudication.

Miscellaneous claims.

	No.	Amount claimed.	Amount allowed.
On hand July 1, 1874	11,571	*$4,720,558 87	
Received during the year	7,116	†3,876,222 53	
Total	18,687	8,596,781 40	
Disposed of during the year	7,714	‡3,455,870 81	$2,935,390 67
On hand July 1, 1875	10,973	§5,140,910 59	

* This is the amount claimed in 10,259 cases, the amounts claimed in the others (1,312) not being stated.
† This is the amount claimed in 6,746 cases, the amounts claimed in the others (370) not being stated.
‡ This is the amount claimed in 7,475 cases, the amounts claimed in the others (239) not being stated.
§ This is the amount claimed in 9,530 cases, the amounts claimed in the others (1,443) not being stated.

Number of letters written, 5,237.

Oregon and Washington Indian war claims, 1855–'56.

	No.	Amount claimed.	Amount allowed.
On hand July 1, 1874	815	*$67,574 34	
Received during the year	47	†3,683 67	
Total	862	71,258 01	
Disposed of during the year	92	‡8,760 09	$11,205 24
On hand July 1, 1875	770	§62,497 92	

* This is the amount claimed in 390 cases, the amounts claimed in the others (425) not being stated.
† This is the amount claimed in 23 cases, the amounts claimed in the others (24) not being stated.
‡ This is the amount claimed in 35 cases, the amounts claimed in the others (57) not being stated.
§ This is the amount claimed in 392 cases, the amounts claimed in the others (578) not being stated.

Number of letters written, 99.

Lost vessels, &c., act March 3, 1849.

	No.	Amount claimed.	Amount allowed.
On hand July 1, 1874	71	$710,296 37	
Received during the year	5	*72,400 00	
Total	76	782,696 37	
Disposed of during the year	4	55,300 00	$29,075 00
On hand July 1, 1875	72	†727,396 37	

* This is the amount claimed in 4 cases, the amount claimed in the other case not being stated.
† This is the amount claimed in 71 cases, the amount claimed in the other case not being stated.

Number of letters written, 4.

By a comparison of this statement with the one submitted at the end of the previous fiscal year it will be perceived that the claims filed during this year were 1,822 less in number than those filed in that year; that 2,295 more claims were disposed of than were disposed of during the previous year, and that 598 more claims were disposed of than were received during the fiscal year; also, that the amount allowed exceeded that of the previous year in the sum of $133,860.45, while the letters written were 2,161 more than those written during the prior year.

The acts of the last Congress which covered into the Treasury all balances of appropriations which had stood upon the books of the Treasury for two years very greatly increased the labors of this division, rendering necessary the writing of large numbers of letters of explanation to disappointed claimants, and the answering of almost innumerable questions of importunate agents and attorneys. Yet, notwithstanding the imposition of these burdens, and many others which might be referred to, growing out of such legislation, there has been no falling off in the work done, but, on the contrary, a decided increase in the number of the claims disposed of, and therefore of the amount allowed.

I have uniformly refused to recommend claims for the use and occupation of real estate in the States declared in insurrection, even when they arose upon contract, yet claims for rent have become very numerous; and it is found that they are, as a general thing, very badly prepared, and very poorly supported, rendering a settlement of many of them utterly impossible.

The difficulty of effecting such settlements has been greatly enhanced since the Quartermaster-General ceased to make investigation of their

merits by sending out agents to examine and report upon them. These examinations fall properly within the province of that Office, the property having been seized or rented by officers of his Department in almost every instance. It is respectfully suggested that you recommend to the consideration of Congress the extension of the provisions of section 3488, Revised Statutes, to all classes of claims that are settled in this Office, in order that the interests of the Government may be protected against the *ex-parte* statements of interested claimants and their attorneys. Such an act would be especially useful at present in the examination of claims for rent of property, but it should not be limited to that class of claims.

HORSE-CLAIMS DIVISION.

This division is engaged in settling claims for compensation for the loss of horses and equipage sustained by officers or enlisted men while in the military service of the United States, and for the loss of horses, mules, oxen, wagons, sleighs, and harness, while in said service by impressment or contract.

The number of claims received and docketed during the year is 661, in which the aggregate amount claimed is $92,066.44. The number settled and finally disposed of during the same period (including those received prior as well as during the year) is 471, in which the aggregate amount claimed is $89,060.65, and on which the aggregate amount allowed is $68,214.71.

There have been during the year 1,220 briefs made; 3,671 claims examined and suspended; 2,809 letters received and docketed, and 7,972 letters written.

The following table presents the condition of the business of this division at the commencement and close of the year, as well as its progress through the year:

	No.	Amount.	No.	Amount.
Claims on hand July 1, 1874			5,068	$946,506 98
Claims received during the year			661	92,066 44
Claims reconsidered during the year			222	32,297 84
Total			5,951	1,070,871 26
Claims allowed during the year	416	$68,214 71		
Rejected on same		12,974 95		
Amount claimed		81,189 66		
Claims disallowed during the year	55	7,870 99		
Deduct as finally disposed of during the year			471	89,060 65
Claims on hand July 1, 1875			5,480	981,810 61

As will be seen by the above statement, the work of this division is gaining quite rapidly; nearly one-third more claims having been received than disposed of during the year.

There are six clerks employed in the division, including the clerk in charge, and to do the work that is necessary to be done as it accrues there should be at least eight.

Notwithstanding the fact that the work done during the year ending June 30, 1874, was considered very creditable to the division, the same clerks accomplished one-third more during the last fiscal year.

PENSION DIVISION.

The duties of this division embrace the settlement of all accounts which pertain to the payment of Army pensions throughout the United

States. The Commissioner of Pensions is charged with the allowance of all claims for pensions under existing laws. The certificate issued in favor of the pensioner is sent directly to the agent for paying pensions, and at the same time a report (being a copy of the certificate) is sent to this Office. This report is recorded in a roll-book, prepared for each agency, on which are given the name in full, rate, date of commencement, termination, or other data, to assist in the proper adjustment of payments made.

An account is also kept with each pension-agent, charging him with all moneys advanced for payment to pensioners, under his proper bond and fiscal year. At the end of each month the agent forwards his vouchers, abstract, and money statement directly to this Office, where a preliminary examination is made to see if the money advanced is properly accounted for, and then the account is acknowledged and filed, awaiting audit. Each voucher is afterward carefully examined, and the payment made entered on the roll-book opposite the pensioner's name. The agent's account, when audited, is reported to the Second Comptroller for his revision and approval, and, after revision, is returned to this Office. The agent is then notified of any errors that may have been found, and the account placed in the settled files, where it permanently remains. In cases of defalcation, certified copies of all papers or statements of accounts are prepared and forwarded to the Second Comptroller, who files therewith a certified copy of the bond, and forwards the same to the Solicitor of the Treasury for prosecution.

By the act of July 8, 1870, pensioners are paid quarterly instead of semi-annually as before, which more than doubles the amount of labor to be performed in examining, filing, and auditing accounts. The act of July 12, 1870, requires all accounts to be audited by fiscal years, and the unexpended balances to be covered into the Treasury. As applied to pensions, the law works admirably. The act of February 14, 1871, granted pensions to survivors of the war of 1812, who served not less than sixty days, and to their widows who were married prior to the treaty of peace.

The act of June 8, 1872, amended the act of June 6, 1866, and increased the pensions, according to disability, to $18, $24, and $31.25 per month, which act was further amended March 3, 1873, by allowing the $18 to be divided *pro rata* for corresponding disability. The act of June 8, 1874, further amended the same by granting and increasing to pensioners who lost an arm above the elbow, or a leg above the knee, to $24 per month, provided they did not receive an artificial limb or commutation therefor.

Amounts to the credit of pension appropriations carried to surplus fund under act of June 20, 1874, being outstanding balances prior to June 30, 1872:

Invalids, fiscal year 1870–'71	$793,450 15
Widows and others, 1870–'71	8,110,813 42
War 1812, act February 14, 1871, 1870–'71	222,148 28
Invalids, 1871–'72	218,733 79
Widows and others, 1871–'72	1,199,470 66
War 1812, act February 14, 1871, 1871–'72	1,832,505 06
	12,377,121 36

Amounts refunded to credit of the following appropriations during the fiscal year ending June 30, 1875:

Invalid, 1870–'71	$228 94
Widows and others, 1870–'71	12,996 01
Invalid, 1871–'72	1,227 94

Widows and others, 1871–'72	$2,475 70
War 1812, 1871–'72	74 81
Balance on hand June 30, 1874, appropriation 1872–'73	1,036,343 09
Amount refunded during the year.....do	9,120 03
	1,045,463 12
Amount paid on settlement of accounts	9,872 62
Balance to credit of appropriation June 30, 1875	1,035,590 50
Balance on hand June 30, 1874, appropriation 1873–'74	1,773 01
Amount refunded during the year.....do	236,016 34
	237,789 35
Amount paid out during the year	23,733 18
Balance to credit of appropriation June 30, 1875	214,056 17
Amount appropriated to pay Army pensions for the fiscal year ending June 30, 1875	29,500,000 00
Amount drawn from the Treasury	29,492,920 20
Balance to credit of appropriation	7,079 80
Total amount advanced to pension agents	29,629,157 94
Total amount paid on audited accounts, (miscellaneous)	5,719 19
	29,634,877 13
Amounts refunded to credit of appropriation	141,956 93
Balance expended to be accounted for	29,492,920 20
Amount paid to pensioners at the several agencies	29,171,179 55
Amount paid on audited accounts, (miscellaneous)	5,719 19
Amount refunded by agents as errors not charged	98 22
Amount refunded by agents on change of bond	140,038 08
Amount refunded by agents as unexpended balance	.....
Amount, June 30, 1875, not yet credited	317,842 09
	29,634,877 13

Number of pensioners added to the roll:

Invalid	5,519
Widows and others	4,614
War 1812	652

Number of increased pensioners:

Invalid	13,483
Widows and others	1,927

Total number of names of pensioners on the rolls, not including minor children. 242,000

The following tabular statement shows the number of accounts received and audited during the fiscal year ending June 30, 1875:

	Number.	Amount involved.
Accounts on hand June 30, 1874	639	$19,426,378 75
Accounts received during the year	798	29,572,855 54
Total	1,437	48,999,234 29
Accounts reported during the year	619	19,888,428 52
Accounts on hand unsettled	818	29,110,805 77
Total	1,437	48,999,234 29

The unsettled accounts on file and in hand are divided as follows, viz:

Fiscal year ending June 30, 1874	207
Fiscal year ending June 30, 1875	611
Total	818

Pensioners recorded and restored	10,777
Pensioners transferred	5,040
Pensioners increased	25,874
Changes and errors noted	8,820
Pension vouchers examined	566,844
Payments entered on roll-books	535,825
Pages of abstracts added	19,706
Pages of miscellaneous copied	1,207
Copies of surgeon's certificate sent to Commissioner of Pensions in increase cases	1,475
Letters received and entered	4,065
Letters written	4,579
Artificial limbs recorded	668

Ninety-six special settlements were made, (the number not being included in the tabular statement above,) mostly of old accounts, which had been closed.

Fifty-eight settlements, involving the sum of $2,316.88, were made on account of lost or destroyed pension checks, as provided for by act of Congress.

The changes in the laws for the payment of pensioners necessitated corresponding changes in the roll-books in which the names of pensioners and the payments to them are recorded. New books were procured with appropriate headings, and while the work of copying the names of pensioners into these books was in progress, the labor of a number of clerks was taken from the settlement of accounts of pension-agents. During the fiscal year, and from January 1, 1874, to April 30, 1875, this work was going on, and now the entire rolls of the several agencies have been copied into 117 large volumes, of 300 pages each, comprising the transfer of over 300,000 names. This has been done with a great deal of care, and without the employment of any additional force. It has thus resulted that the accounts of pension-agents have not been settled as promptly as I desired; but the work of copying these names into the new books has been done, and well done, and there is now a separate roll for each agency, which was not the case with the old books. Settlements can now be made with greater facility and satisfaction. The work in the record section is up to date, and the surplus force employed thereon has been transferred to the settlement of accounts.

The force employed in this division numbered 45 clerks and 2 copyists.

* * * * * * * *

COLLECTION DIVISION.

The following table shows the work of this division in the months named:

Month.	Delinquents recorded.	Entries on register.	Special cases.			Letters written.	Cases prepared for suit.
			Number of cases examined.	Containing vouchers.	Accounts referred to.		
1874.							
July	127	96	209	331	319	126	1
August	87	311	117	209	60	58	.....
September	.....	107	192	305	102	43	.....
October	.....	104	107	.....	150	35	.....
November	.....	212	227	297	171	69	.....
December	.....	103	167	3,113	237	79	.....
1875.							
January	.....	163	106	420	143	87	1
February	.....	203	170	510	284	107	.....
March	20	194	247	348	262	62	.....
April	.....	324	411	893	540	135	.....
May	.....	193	193	14,787	385	112	3
June	.....	276	293	1,518	720	138	2
	234	2,286	2,439	22,751	3,352	1,061	7

The "special cases" named above embrace requests for varied information from the files of the Office; many cases show no vouchers examined, but close scrutiny of voluminous papers is required to get at the facts desired, and much time is necessarily consumed in the research, but it is impossible to show the amount of work done in a tabular form. The system of examination to ascertain if certifying officers have taken up and accounted for property purchased, and checking the abstract of the accounting officers, has resulted in disclosing many instances of duplicate claims presented, and preventing double payments.

The accounts of all officers referred for suit have been prepared and forwarded to the Second Comptroller. A large number of apparently delinquent officers have forwarded explanations, thus enabling the accounting officers to close their accounts, and, in a few instances, money has been paid for the same purpose. How to reach the delinquents still on the books, or their legal representatives, and induce payment of apparent balances due the United States, or proper explanations, is a problem which has not yet been satisfactorily solved.

BOUNTY-LAND AND PENSION DIVISION, WAR OF 1812.

During the fiscal year, eighteen hundred and ninety pension claims (1,890) under act of Congress of February 14, 1871, have been examined and the services properly certified to the Commissioner of Pensions.

Five hundred and fourteen bounty-land claims (514) were examined and properly certified.

Three hundred and fifty-seven letters (357) were written on matters relating to the war of 1812, and the war of the Revolution.

POSTAGE-STAMPS.

The following statement shows the number of official postage-stamps used in this Office during the fiscal year ended June 30, 1875:

Date.	1-ct.	2.	3.	6.	7.	10.	12.	15.	24.	30.	90.
1874.											
July	109	461	1,583	360	2	11	42	10	....	13	7
August	2	303	968	359	....	3	33	14	4	4	1
September	.....	419	1,332	321	....	....	16	....	....	7	2
October	50	405	1,416	165	5	5	8	1	....	1	2
November	.....	377	1,053	237	....	2	14	2	5	9	10
December	.....	517	1,385	290	5	2	2	18	1	4	....
1875.											
January	4	354	1,251	196	....	6	....	7	....	9	1
February	191	393	1,253	239	....	16	11	....	....	....	....
March	612	356	1,486	552	....	11	16	....	1	2	....
April	.....	373	1,308	796	....	1	7	2	....	4	....
May	.....	398	1,794	688	....	2	....	4	5	....	2
June	.....	329	1,527	196	....	....	1	1	8	....	2
Total	968	4,685	16,356	4,399	12	59	150	59	24	53	27

THE FILES.

From March, 1817, to the end of the last fiscal year, the whole number of official money-settlements filed was.....	148,562
Number added during this year.....	7,431
Total to June 30, 1875.....	155,993

There are also a large number of property settlements and provision returns on file; but as a portion of them are filed by letters only, the

entire number cannot well be ascertained. Some two thousand (2,000) of this class have been added during the year.

The settlements now occupy four rooms, containing, in all, about twenty-eight thousand (28,000) cubic feet of space available for files. Owing to certain alterations made in the large room, and the removal therefrom of the rolls of the war of 1812, it is probable there will be room for the incoming accounts up to June 30, 1876.

At present, the files are in good condition; but the rooms, with one exception, are uncomfortable and unsafe, none of them being fire-proof, and some steps should be taken at an early day to procure a fire-proof building, not only for the valuable papers already filed, upon which large sums have been paid, but also for the additional settlements which are added year by year.

There are ten lady copyists assigned to this Office, who have been usefully employed during the year. The number of difference-sheets registered was 980, miscellaneous papers 3,921; total, 4,901. The number of pages of difference-sheets copied and compared was 3,354, number of miscellaneous papers, 13,503 pages; number of pages of letters, 3,598; total, 20,455 pages.

The business of some portions of the Office shows considerable increase; but the work has been performed as promptly as the force in the Office could perform it. The persons employed have been generally faithful and efficient in the discharge of the duties assigned them; but, for the reasons stated above, some accounts in the pension division have not been examined and reported as early as was desirable. The work of transferring the names of pensioners into new books having been completed, the work in that division, it is hoped, will be brought up without delay.

Respectfully submitted.

ALLAN RUTHERFORD, *Auditor.*

Hon. BENJAMIN H. BRISTOW,
Secretary of the Treasury.

REPORT OF THE FOURTH AUDITOR OF THE TREASURY.

TREASURY DEPARTMENT,
Fourth Auditor's Office, October 30, 1875.

SIR: In compliance with your request, I have the honor to submit a statement of the work performed in this Office during the fiscal year ending June 30, 1875. In accordance with the act of Congress re-organizing the Treasury Department, approved March 3, 1875, this Office was divided into three divisions, and George L. Clark was appointed chief of the first division, Benjamin P. Davis chief of the second division, and William F. Stidham chief of the third division. But in order to facilitate the transaction of business in the Office, it was further divided into six sections, under the charge of the same number of heads. The following tabular statements, in a concise and comprehensive form, give the amount of the work performed by the sections respectively during the last fiscal year, and also its various details:

Statement of accounts, including marine, received and settled in the paymasters' division from July 1, 1874, to June 30, 1875, with the amount of cash disbursed in those settled, and the number of letters received and written in relation to the same—George L. Clark in charge.

Date.	Accounts received.	Accounts settled.	Letters received.	Letters written.	Cash disbursements.
1874.					
July	48	42	149	169	$1,647,297 06
August	26	36	90	122	1,188,699 89
September	31	55	114	122	1,970,532 57
October	88	83	174	172	1,816,173 19
November	84	94	105	136	1,672,527 71
December	41	39	132	172	587,603 45
1875.					
January	43	57	126	211	2,128,047 67
February	66	60	115	191	1,942,507 08
March	34	48	116	224	1,349,381 87
April	46	56	123	190	1,853,587 22
May	55	51	152	204	1,757,076 98
June	24	39	119	185	1,317,031 56
Total	606	660	1,515	2,098	19,230,476 25

Number of unsettled accounts on hand July 1, 1874, 69; number of unsettled accounts on hand June 30, 1875, 15; number of cash-vouchers examined, exclusive of pay and mechanics' rolls, bills of exchange, &c., 12,974; number of accounts prepared for suit and sent through the Second Comptroller to the Solicitor of the Treasury, 29; average number of clerks employed in the division, 17.

Statement of the work performed by the book-keepers' section from July 1, 1874, to June 30, 1875, inclusive—Paris H. Folsom in charge.

Date.	Number of pay-requisitions.	Amount of pay-requisitions.	Number of repay-requisitions.	Amount of repay-requisitions.	Letters received.	Letters written.	Accounts journalized, entered, and balanced.	Ledger extracts.	Accounts received.	Accounts settled.	Summary statements entered.	Reports entered.	Checkages entered.
1874.													
July	238	$3,407,952 85	22	$109,993 86	179	398	73	41	2	2	52	94	14
August	169	2,677,474 16	7	213,067 91	154	246	11	43	....	....	35	36	6
September	166	3,309,735 07	25	612,979 80	126	300	50	42	....	....	48	93	29
October	165	2,592,113 68	17	240,380 40	135	295	43	142	2	2	....	15	11
November	140	2,145,215 57	10	156,895 16	126	282	41	116	....	....	129	....	7
December	150	2,710,063 69	20	917,211 00	142	228	168	46	1	1	44	....	19
1875.													
January	152	1,964,870 18	31	841,505 63	130	248	117	51	48	48	80	....	18
February	139	1,329,593 19	15	215,616 71	106	163	106	177	8	8	35	....	12
March	142	2,125,509 56	12	317,915 61	126	290	137	54	149	149	119	....	21
April	186	1,911,179 88	22	711,648 76	135	248	232	65	194	194	57	....	14
May	143	1,138,368 42	18	247,398 39	154	243	199	74	136	136	94	....	38
June	129	1,186,054 05	19	112,814 77	172	248	152	540	11	11	68	....	64
Total	1,919	26,498,130 30	218	4,607,428 00	1,685	3,189	1,329	1,391	551	551	761	238	253

Average number of clerks employed, 43.

Statement of the work performed by the general claims section for the year ending June 30, 1875—Robert Kearon in charge.

Date.	Claims— Received.	Claims— Adjusted.	Amount involved.	Letters written.	Number of reports on application for— Pension.	Bounty-land.	Admission to Naval Asylum.
1874.							
On hand June 30	174						
July	177	113	$14,092 98	474	35	4	
August	136	166	14,602 63	512	26	11	1
September	107	106	10,152 75	418	41	3	
October	158	153	31,122 63	431	22		
November	97	108	9,655 25	386	27	3	1
December	125	148	20,452 90	491	20	6	2
1875.							
January	165	132	16,087 46	450	26	5	
February	114	114	8,144 55	469	30	4	1
March	138	119	47,351 25	529	41	1	1
April	127	119	28,371 45	448	24	1	1
May	83	150	25,853 41	345	19	1	1
June	116	124	17,074 63	333	29	3	1
Total	1,717	1,552	243,561 89	5,296	340	42	9

Average number of clerks employed, 8.

Statement of the work performed by the navy-agents' section for the fiscal year ending June 30, 1875—William F. Stidham in charge.

Date.	Accounts received.	Accounts settled.	Amount involved.	Letters received.	Letters written.
1874.					
July	18	17	$403,881 37	248	198
August	17	12	2,058,646 20	193	200
September	6	16	8,374,046 10	141	89
October	13	11	91,646 81	203	206
November	25	22	251,336 00	185	186
December	12	14	2,474,344 31	161	124
1875.					
January	47	49	726,432 35	140	120
February	14	7	1,450,669 53	164	123
March	15	21	2,239,283 35	141	123
April	11	8	175,609 08	176	135
May	248	11	232,876 69	167	140
June	353	19	4,400,550 57	204	155
Total	779	207	22,879,322 36	2,123	1,798

Allotment accounts.

Date.	Allotments registered.	Allotments discontinued.	Date.	Allotments registered.	Allotments discontinued.
1874.			1875.		
July	25	93	January	37	46
August	53	79	February	128	45
September	29	59	March	24	33
October	75	90	April	24	57
November	68	72	May	24	57
December	35	44	June	97	72
Total	285	437	Total	371	335

Statement of the amounts paid by the navy-agents for allotments during the year 1874.

New York	$78,363 00
Philadelphia	42,675 00
Baltimore	14,865 00
San Francisco	2,607 00
Boston	44,718 00
Washington	18,149 00
Portsmouth	6,454 00
Total	207,831 00

Accounts remaining on hand June 30, 1875, 580; number of vouchers examined, 29,049; average number of clerks employed, 6¼.

Statement of work performed by the prize-money and record section during the fiscal year ending June 30, 1875—Benjamin P. Davis in charge.

Date.	Letters.		Claims.		Amount paid.	Records.				
	Received.	Written.	Received.	Settled.	Prize-money.	Letters keyed in.	Letters keyed out.	Letters indexed.	Names indexed.	Dead-letters registered.
1874.										
July	956	1,434	903	953	$139,301 58	2,168	2,756	2,188	4,019	60
August	787	1,165	246	303	42,369 83	1,825	2,277	2,181	4,307	53
September	645	1,396	51	834	97,365 19	1,516	2,450	1,177	3,256	45
October	617	1,287	209	222	22,722 85	1,735	2,483	2,436	4,293	58
November	484	595	119	119	9,994 05	1,353	1,692	770	1,294	26
December	413	478	91	89	11,800 44	1,391	1,585	2,175	3,965	31
1875.										
January	339	397	67	68	8,569 07	1,266	1,475	3,039	5,471	13
February	299	386	44	42	4,096 39	1,217	1,372	2,618	3,035	32
March	391	373	74	69	9,744 47	1,352	1,602	2,329	3,453	28
April	249	341	59	58	4,619 34	1,206	1,412	2,329	3,453	6
May	249	523	53	49	4,872 08	1,144	1,308	4,144	6,367	10
June	535	485	46	36	3,133 17	1,209	1,447	4,114	7,641	9
Total	5,964	8,860	1,866	2,842	358,588 39	17,383	21,859	29,700	50,554	381

In addition to the above this division is charged with the duties of preparing tabular statements and reports called for by Congress and the Secretary of the Treasury; keeping a record of appointments, resignations, removals, and absences; receiving and distributing the stationery used by the Office, and the payment of salaries to employés. Number of clerks employed, 8.

Statement showing the amounts disbursed at the different agencies on account of navy pensions, and the work performed by the navy-pension section during the fiscal year ending June 30, 1875—Richard Goodhart in charge.

Location.	Number of navy invalid pensioners.	Number of navy widow, pensioners and dependent relatives.	Total number of navy pensioners.	Total disbursements.
Baltimore, Md	56	100	156	$30,461 30
Boston, Mass	354	405	759	91,133 53
Brooklyn, N. Y	451	486	937	114,433 94
Cincinnati, Ohio	47	133	180	21,426 04
Chicago, Ill	50	38	88	11,254 82
Detroit, Mich	15	35	50	4,385 51
Hartford, Conn	16	35	51	6,681 17
Louisville, Ky	8	11	19	3,296 62
Milwaukee, Wis	10	24	34	2,363 32
New Orleans, La	12	21	33	4,952 07
Pittsburgh, Pa	19	45	64	9,192 69
Philadelphia, Pa	242	324	566	80,822 15
Portland, Me	66	97	163	21,575 56
Portsmouth, N. H	39	38	77	8,960 99
Providence, R. I	21	42	63	16,725 93
Richmond and Norfolk, Va	26	40	66	10,821 65
San Francisco, Cal	30	4	34	5,396 48
Saint Louis, Mo	22	17	39	6,234 54
Saint Paul, Minn	3	4	7	1,086 92
Trenton, N. J	39	71	110	13,792 49
Washington, D. C	152	209	361	56,832 58
Total	1,678	2,179	3,857	521,829 60

During this time there were 209 accounts received; 244 accounts settled, involving an expenditure of $550,250.46. Also, there were 410 letters received and 508 letters written. Average number of clerks employed, $1\frac{3}{5}$.

An examination of these tabular statements will show that, during the fiscal year, 660 paymasters' accounts, involving the sum of $19,230,476.25, have been adjusted; 207 navy-paymasters' and individual accounts, in which the sum of $22,879,322.36 was involved; 2,842 prize-claims, amounting to $358,588 in the aggregate; 1,552 general claims, amounting to $243,561 in the aggregate; and 244 navy-pension accounts, involving the sum of $550,250.

In addition to the above, 1,919 pay-requisitions, amounting to $26,498,130.30, and 218 refunding-requisitions, amounting to $4,697,428, have been entered; 656 allotments registered, 772 discontinued; 17,383 letters have been received and 21,859 written. Reports have been made in 340 pension cases, 42 bounty-land cases, and upon 9 applications for admission into the United States Naval Asylum.

In the transaction of this large amount of business there were employed, on an average, but 45 clerks.

It will thus be seen that the showing of this Office is very creditable to the industry, efficiency, and ability of the clerical force of the Department. As a whole, notwithstanding some few occasions for complaint, I have good cause to commend the conduct and work of the clerks under my charge. The heads of the different sections have uniformly performed their duties to my satisfaction, and I again take pleasure in mentioning the aid and assistance I have constantly received from my faithful and able deputy auditor, William B. Moore.

In thus submitting this concise statement of the business of the Office

during the past fiscal year, I beg leave to observe that it is my desire to co-operate with you in every way to give correctness and efficiency to the public service.

I have the honor to be, sir, your obedient servant,

STEPHEN J. W. TABOR,
Auditor.

Hon. B. H. BRISTOW,
Secretary of the Treasury.

REPORT OF THE FIFTH AUDITOR OF THE TREASURY.

TREASURY DEPARTMENT, FIFTH AUDITOR'S OFFICE,
October 31, 1875.

SIR: Herewith are submitted tabular statements of the operations of this Office for the year ending June 30, 1875. There have been three thousand nine hundred and six letters written; two hundred and thirty thousand five hundred and forty-nine vouchers examined; and eleven thousand six hundred and ninety-seven accounts adjusted.

Very respectfully,

J. H. ELA,
Auditor.

Hon. B. H. BRISTOW,
Secretary of the Treasury.

Statement of the expenses of all missions abroad, for salaries, contingencies, and loss by exchange, from July 1, 1874, *to June* 30, 1875, *as shown by accounts adjusted in this Office.*

No.	Mission.	Salary.	Contingencies.	Loss by exchange.	Total.
	ARGENTINE REPUBLIC.				
1	T. O. Osborn, minister	$7,500 00	$339 45	$108 21	$7,947 66
	AUSTRIA.				
2	John Jay, late minister	9,989 01	2,293 24		
3	G. S. Orth, minister	2,538 46	167 50		
4	J. F. Delaplaine, chargé	1,640 11			
5	J. F. Delaplaine, secretary of legation	1,300 00			
		15,467 58	2,460 74		17,928 32
	BELGIUM.				
6	J. R. Jones, minister	7,948 36	997 44		8,945 80
	BRAZIL.				
7	J. R. Partridge, minister	12,000 00	291 97		
8	R. C. Shannon, secretary of legation	1,800 00			
		13,800 00	291 97		14,091 97
	BOLIVIA.				
9	R. M. Reynolds, minister	7,072 00	220 56	70 22	7,362 78
	CENTRAL AMERICA.				
10	George Williamson, minister	10,000 00	2,010 03		12,010 03

Statement of the expenses of all missions, &c.—Continued.

No.	Mission.	Salary.	Contingencies.	Loss by exchange.	Total.
	CHILI.				
11	C. A. Logan, minister	$10,000 00	$730 00	$365 95	$11,095 95
	CHINA.				
12	B. P. Avery, minister	5,554 21	.....	352 76	.....
13	S. W. Williams, chargé	1,956 52	.....	.....	.....
14	S. W. Williams, secretary of legation and interpreter.	2,119 57	.....	.....	.....
		9,630 30	.....	352 76	9,983 06
	COLOMBIA.				
15	William L. Scruggs, minister	5,625 00	450 70	.....	6,075 70
	DENMARK.				
16	M. J. Cramer, minister	7,500 00	493 50	159 98	8,153 48
	ECUADOR.				
17	Thomas Biddle, late minister	520 83	.....	.....	520 83
	FRANCE.				
18	E. B. Washburne, minister	17,500 00	3,650 62	53 40	.....
19	W. Hoffman, chargé	998 64	.....	.....	.....
20	W. Hoffman, secretary of legation	1,904 54	.....	.....	.....
21	G. Washburne, assistant secretary of legation	2,000 00	.....	.....	.....
		22,403 18	3,650 62	53 40	26,107 20
	GERMAN EMPIRE.				
22	George Bancroft, late minister	2,044 84	.....	.....	.....
23	J. C. B. Davis, minister	17,500 00	3,066 67	3 10	.....
24	N. Fish, chargé	898 81	581 67	.....	.....
25	N. Fish, secretary of legation	2,077 75	.....	.....	.....
26	C. Coleman, assistant secretary of legation	2,000 00	.....	.....	.....
		24,521 40	3,648 34	3 10	28,172 84
	GREAT BRITAIN.				
27	R. C. Schenck, minister	17,500 00	3,359 29	.....	.....
28	B. Moran, chargé	2,413 99	.....	.....	.....
29	B. Moran, secretary of legation	1,538 54	.....	.....	.....
30	W. Hoffman, secretary of legation	656 25	.....	.....	.....
31	William H. Cheesebrough, secretary of legation	2,000 00	.....	.....	.....
		24,108 78	3,359 29	.....	27,468 07
	GREECE.				
32	J. M. Read, minister	1,589 67	.....	.....	1,589 67
	HAWAIIAN ISLANDS.				
33	H. A. Peirce, minister	7,500 00	284 20	.....	7,784 20
	HAYTI.				
34	E. D. Bassett, minister	7,275 35	834 29	379 21	8,488 85
	ITALY.				
35	George P. Marsh, minister	12,000 00	519 99	.....	.....
36	G. W. Wurts, secretary of legation	1,800 00	.....	.....	.....
		13,800 00	519 99	.....	14,319 99
	JAPAN.				
37	J. A. Bingham, minister	12,000 00	4,995 96	247 61	.....
38	D. W. Stevens, secretary of legation	2,500 00	.....	21 82	.....
39	D. Thompson, interpreter	1,250 00	.....	17 08	.....
		15,750 00	4,995 96	289 51	21,035 47

Statement of the expenses of all missions, &c.—Continued.

No.	Mission.	Salary.	Contingencies.	Loss by exchange.	Total.
	LIBERIA.				
40	J. M. Turner, minister	$3,700 00	$187 91	$66 01	$3,953 92
	MEXICO.				
41	J. W. Foster, minister	12,000 00	2,544 65	.....	.....
42	P. C. Bliss, secretary of legation	1,800 00	.....	.....	.....
		13,800 00	2,544 65	.....	16,344 65
	NETHERLANDS.				
43	Charles T. Gorham, minister	7,500 00	517 71	114 65	8,132 36
	PARAGUAY AND URUGUAY.				
44	J. C. Caldwell, minister	2,943 74	125 00	168 12	3,236 86
	RUSSIA.				
45	M. Jewell, late minister	2,520 38	148 52	.....	.....
46	G. H. Boker, minister	2,932 69	.....	.....	.....
47	E. Schuyler, chargé	6,148 08	1,179 36	.....	.....
48	E. Schuyler, secretary of legation	785 69	.....	.....	.....
		12,387 74	1,327 88	.....	13,715 62
	SPAIN.				
49	C. Cushing, minister	12,000 00	8,447 78	361 18	.....
50	A. A. Adee, secretary of legation	1,500 00	.....	.....	.....
		13,500 00	8,447 78	361 18	22,308 96
	SWEDEN.				
51	C. C. Andrews, minister	7,500 00	695 87	208 05	8,403 92
	SWITZERLAND.				
52	H. Rublee, minister	7,500 00	536 72	.....	8,036 72
	TURKEY.				
53	George H. Boker, late minister	618 13	11,979 95	107 49	.....
54	H. Maynard, minister	1,964 29	630 04	.....	.....
55	J. H. Goodenow, chargé	236 26	.....	.....	.....
		2,818 68	12,609 99	107 49	15,536 16
	UNITED STATES DISPATCH AGENT.				
56	B. F. Stevens	2,000 00	25,336 69	.....	27,336 69
	Grand total	285,662 61	77,617 28	2,807 84	366,087 73
	UNITED STATES BANKERS, LONDON.				
	Morton, Rose & Co.	.....	.....	274 73	336,343 22

REMARKS.

12. No account for contingencies received.
17. The minister died before reaching his post of duty.
32. Accounts from this mission are quite incomplete and partially suspended.
44. Account for 4th quarter, 1874, not received.
49. Extra telegraph expenses included in contingencies.
53. Presents to Turkish officials on conclusion of treaty explain large amount of contingencies.

Statement of consular fees, consular salaries, and emoluments to officers, and loss by exchange, for the fiscal year ended June 30, 1875.

Consulates, consular agencies, &c.	Salary and emoluments.	Fees.	Loss.	Remarks.
Acapulco	$2,000 00	$390 07	.....	
Salinas Cruz	171 80	171 80	.....	
Aguas Calientes	.....	.....	.....	No returns.
Aix-la-Chapello	2,000 00	1,604 00	$87 86	
Cologne	*1,720 44	1,720 44	.....	
Algiers	750 00	34 37	59 01	Returns for first and second quarters 1875 not received.
Alicante	203 97	203 97	.....	
Amapala	354 43	354 43	.....	
Amoor River	.....	.....	.....	No returns.
Amoy	3,500 00	1,511 04	244 86	
Amsterdam	1,500 00	1,271 19	14 84	
Nieuwediep	158 32	158 32	.....	
Ancona	22 00	22 00	.....	Returns for fourth quarter 1874, and first and second quarters 1875, not received.
Antigua	27 54	27 54	.....	Returns incomplete.
Antwerp	2,500 00	2,775 02	.....	
Apia	1,201 09	117 00	237 00	Inclusive of instruction and transit salary.
Archangel	.....	.....	.....	No returns.
Asuncion	.....	.....	.....	Do.
Bahia	1,500 00	848 53	.....	
Bangkok	3,000 00	203 69	699 07	
Barbadoes	1,438 78	1,814 32	.....	Returns from October 1, 1874, to November 28, 1874, not received.
St. Lucia	113 93	113 93	.....	Returns for fourth quarter 1874, and second quarter 1875, not received.
St. Vincent	42 20	42 20	.....	
Barcelona	1,728 27	506 65	39 15	Inclusive of transit salary.
Tarragona	.....	.....	.....	No returns.
Barmen	2,322 22	7,987 00	136 93	Inclusive of transit salary.
Crefeld	*1,983 20	3,142 50	.....	
Dusseldorf	*1,027 50	1,027 50	.....	
Basle	2,000 00	2,415 00	1 84	
Olten	*2,005 97	2,334 50	.....	
Batavia	1,000 00	1,333 06	.....	
Soerabaya	375 53	375 53	.....	Returns for fourth quarter 1874 not received.
Bathurst	36 24	36 24	.....	
Bay of Islands	1,500 00	765 27	13 70	
Beirut	3,338 84	189 96	157 22	Inclusive of consular clerk's salary, and instruction and transit salary.
Belfast	2,500 00	10,016 94	.....	
Ballymena	326 25	326 25	.....	
Belize	1,097 96	1,097 96	.....	
Bergen	95 50	95 50	.....	
Berlin	4,750 00	7,044 50	4 04	Inclusive of consular clerk's salary.
Breslau	854 25	854 25	.....	Commenced October 7, 1874.
Bilbao	.....	.....	.....	No returns.
Birmingham	2,500 00	8,363 01	.....	
Leicester	*1,514 50	1,514 50	.....	
Redditch	*1,334 50	1,334 50	.....	
Kidderminster	665 00	665 00	.....	
Wolverhampton	598 50	598 50	.....	
Bogota	10 00	10 00	.....	Returns for first and second quarters 1875 not received.
Bombay	300 45	300 45	.....	Do.
Bordeaux	3,096 11	6,616 95	.....	Inclusive of consular clerk's salary.
Pau	497 34	497 34	.....	
Bayonne	45 00	45 00	.....	
Bradford	3,000 00	15,943 02	.....	
Bremen	2,500 00	3,042 50	.....	
Bremerhaven	*2,000 00	2,134 96	.....	
Bristol	1,707 42	1,409 95	5 28	
Gloucester	346 94	346 94	.....	
Brunswick	2,981 00	2,981 00	.....	
Brussels	2,500 00	3,356 50	.....	
Bucharest	1,000 00	8 00	16 70	
Buenaventura	.....	.....	.....	No returns.
Buenos Ayres	3,000 00	3,950 80	.....	
Cadiz	1,500 00	1,223 94	30 42	
San Lucas	28 54	28 54	.....	
Cairo	4,727 50	246 50	36 06	Inclusive of consular clerk's salary.
Alexandria	162 25	162 25	.....	
Calcutta	5,000 00	4,826 98	.....	
Akyab	86 53	86 53	.....	
Bassein	70 52	70 52	.....	
Coconada	7 40	7 40	.....	
Madras	107 24	107 24	.....	
Maulmain	174 94	174 94	.....	

Statement of consular fees, consular salaries, and emoluments to officers, &c.—Continued.

Consulates, consular agencies, &c.	Salary and emoluments.	Fees.	Loss.	Remarks.
Rangoon	$403 48	$403 48	.....	
Callao	3,500 00	1,945 50	.....	
Camargo	205 97	205 97	.....	
Canton	3,202 05	1,153 39	$540 54	Returns for second quarter 1875 not received. Inclusive of instruction and transit salary.
Cape Haytien	1,000 00	580 68	.....	
Gonaives	206 58	206 58	.....	
Port de Paix	33 82	33 82	.....	
Cape Town	1,500 00	709 66	54 71	
Port Natal	.....	.....	.....	No fees.
Port Elizabeth	553 72	553 72	.....	
Simonstown	83 36	83 36	.....	
Cardiff	2,000 00	1,969 52	.....	
Newport	428 34	428 34	.....	
Swansea	203 43	203 43	.....	
Milford Haven	53 39	53 39	.....	
Llanelly	22 50	22 50	.....	
Carrara	736 00	736 00	.....	
Carthagena, Spain	.....	.....	.....	No returns.
Ceylon	.....	.....	.....	Do.
Chemnitz	2,000 00	7,423 00	.....	
Chihuahua	215 50	215 50	.....	Returns for second quarter 1875 not received.
Chin Kiang	4,309 38	394 48	38 33	Inclusive of instruction and transit salary.
Christiania	202 50	202 50	.....	
Christiansand	24 00	24 00	.....	
Ciudad Bolivar	486 75	486 75	.....	Returns for second quarter 1875 not received.
Clifton	1,500 00	1,015 50	.....	
St. Catharine's	109 75	109 75	.....	Returns for second quarter 1875 not received.
Coaticook	2,000 00	2,782 75	2 00	
Lineboro	465 00	465 00	.....	
Georgeville	414 00	414 00	.....	
Stanstead	239 00	239 00	.....	
Hereford	158 50	158 50	.....	
Polton	142 50	142 50	.....	
Colon	3,000 00	4,121 27	.....	
Colonia	305 99	305 99	.....	Returns for second quarter 1875 not received.
Paysandu	58 51	58 51	.....	Returns for first and second quarters 1875 not received.
Constantinople	3,000 00	861 61	213 83	
Copenhagen	1,500 00	194 72	93 44	
Elsinore	90 77	90 77	.....	
Fredrickshaven	2 00	2 00	.....	
Coquimbo	.....	.....	.....	No returns.
Cordoba	.....	.....	.....	Do.
Cork	2,000 00	833 22	.....	
Waterford	50 02	50 02	.....	
Corunna	177 61	177 61	.....	
Vigo	6 00	6 00	.....	No returns for fourth quarter 1874 and first and second quarters 1875.
Curacoa	1,995 21	1,995 21	.....	
Bonaire	97 83	97 83	.....	Returns for fourth quarter 1874 not received.
Cyprus	1,000 00	.....	96 90	
Demerara	3,000 00	2,188 96	.....	
Denia	285 68	385 68	.....	Returns for first and second quarters 1875 not received.
Dresden	2,500 00	5,534 29	.....	
Dublin	2,000 00	2,497 19	.....	
Limerick	53 77	53 77	.....	
Dundee	2,000 00	7,181 62	6 31	
Aberdeen	*1,271 60	1,271 60	.....	
Falmouth	277 63	277 63	.....	
Scilly Islands	6 00	6 00	.....	Partial returns.
Fayal	1,500 00	631 95	.....	
Flores	90 82	90 82	.....	
St. George	30 00	30 00	.....	
St. Michael	157 82	157 82	.....	
Terceira	14 96	14 96	.....	
Florence	1,500 00	2,114 50	.....	
Foo-Chow	3,500 00	905 81	182 90	
Fort Erie	1,500 00	1,744 75	.....	
Port Stanley and St. Thomas.	860 50	860 50	.....	
Port Rowan	277 50	277 50	.....	
Frankfort-on-the-Main	3,000 00	3,216 00	34 30	Inclusive of consular clerk's salary.

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Statement of consular fees, consular salaries, and emoluments to officers, &c.—Continued.

Consulates, consular agencies, &c.	Salary and emoluments.	Fees.	Loss.	Remarks.
Mayence	*$2,262 50	$3,007 50	.....	
Funchal	1,500 00	151 23	$67 43	
Gaboon	1,000 00	81 70	.....	
Galatza	.....	.....	.....	No returns.
Gaspé Basin	1,000 00	.....	10 00	
Geneva	1,500 00	944 25	16 56	
Genoa	1,500 00	1,264 48	14 94	
Turin	128 00	128 00	.....	
Ghent	298 00	298 00	.....	
Gibraltar	1,500 00	839 10	.....	
Glasgow	3,000 00	10,056 81	.....	
Greenock	295 73	295 73	.....	
Goderich	1,500 00	476 70	.....	
Stratford	*2,076 07	2,446 50	.....	
Palmerston	271 00	271 00	.....	
Gottenburg	85 50	85 50	.....	Partial returns.
Grand Bassa	12 08	12 08	.....	Do.
Guadaloupe	1,146 38	1,146 38	.....	
Guatemala	604 50	604 50	.....	
San José	139 68	139 68	.....	Partial returns.
Champerico	45 00	45 00	.....	Do.
Guayaquil	1,000 00	556 50	.....	
Guaymas	1,000 00	744 66	.....	
Guerrero	77 50	77 50	.....	
Hakodadi	2,500 00	173 02	221 99	
Halifax	2,000 00	3,388 82	2 80	
Liverpool	77 08	77 08	.....	
Bridgewater	33 46	33 46	.....	
Shelburn	12 50	12 50	.....	
Barrington	12 50	12 50	.....	
Hamburg	2,500 00	6,775 55	15 07	
Harburg	*1,565 00	1,565 00	.....	
Kiel	118 00	118 00	.....	
Lubec	51 11	51 11	.....	
Cuxhaven	14 00	14 00	.....	
Hamilton, Bermuda	1,500 00	1,787 70	.....	
St. George's	662 28	662 28	.....	
Hamilton, Canada	2,000 00	1,714 25	.....	
Guelph	*1,143 00	1,143 00	.....	
Paris	*1,109 00	1,109 00	.....	
Hankow	3,500 00	934 62	503 42	
Kiu-Kiang	149 37	149 37	.....	
Havana	8,096 11	21,804 87	.....	Inclusive of salary of two consular clerks.
San Juan de los Remedios.	*1,207 25	1,207 25	.....	
Nuevitas	32 30	32 30	.....	
Havre	3,000 00	5,442 70	.....	
Rouen	228 84	228 84	.....	
Brest	146 00	146 00	.....	
Dunkirk	116 50	116 50	.....	
Dieppe	46 00	46 00	.....	
Cherbourg	21 50	21 50	.....	
Honfleur	2 00	2 00	.....	
Helsingfors	.....	.....	.....	No fees; returns partial.
Wyborg	1 87	1 87	.....	
Hobart Town	217 09	217 09	.....	Returns for third quarter 1874 not received.
Hong-Kong	4,000 00	14,505 64	14 40	
Honolulu	4,695 65	3,782 03	.....	Inclusive of instruction and transit salary.
Hilo	24 83	24 83	.....	
Jerusalem	1,500 00	122 07	153 08	
Jaffa	19 00	19 00	.....	
Kanagawa	4,391 29	6,150 07	128 12	Inclusive of transit salary.
Kingston, Jamaica	2,076 08	2,616 57	4 52	Do.
St. Ann's Bay	193 62	193 62	.....	
Montego Bay	214 79	214 79	.....	
Falmouth	326 76	326 76	.....	
Port Antonio	309 81	309 81	.....	
Black River	152 34	152 34	.....	
Savannah-la-mar	112 31	112 31	.....	
Grand Caymans	56 76	56 76	.....	
Old Harbor	102 17	102 17	.....	
Kingston, Canada	1,500 00	722 50	.....	
Belleville	*1,483 50	1,483 50	.....	
Napanee	*1,015 50	1,015 50	.....	
Picton	324 00	324 00	.....	
Gananoque	82 50	82 50	.....	
Laguayra	1,817 72	1,400 52	.....	Inclusive of instruction and transit salary
Laguna	.....	.....	.....	No returns.
Lanabayeque	105 87	105 87	.....	

Statement of consular fees, consular salaries, and emoluments to officers, &c.—Continued.

Consulates, consular agencies, &c.	Salary and emoluments.	Fees.	Loss.	Remarks.
Port Eten	$65 25	$65 25	.....	
Lanthala	1,000 00	31 37	$48 98	
La Paz, Mexico	588 93	588 93	.....	
La Paz, Bolivia	.....	.....	.....	No returns.
La Rochelle	1,500 00	361 50	40 63	
Cognac	*1,334 50	1,334 50	.....	
Limoges	874 50	874 50	.....	
La Union	424 08	424 08	.....	Returns for second quarter 1875 not received.
Leeds	2,120 88	1,435 50	1 31	Inclusive of transit salary.
Huddersfield	*2,041 07	4,478 50	.....	
Hull	631 87	631 87	.....	
Leghorn	1,858 69	1,865 40	21 47	Inclusive of instruction and transit salary.
Leipsic	2,250 00	6,958 52	16 05	Inclusive of consular clerk's salary for one quarter.
Leith	2,000 00	2,915 62	.....	
Dunfermline	*2,093 10	2,214 50	.....	
Lisbon	500 00	264 92	47 67	Returns for fourth quarter 1874 and first and second quarters 1875 not received.
Liverpool	7,000 00	37,640 80	.....	Inclusive of consular clerk's salary.
St. Helen's	*2,036 15	3,349 67	.....	
London	6,000 00	44,392 78	.....	
Ramsgate	9 50	9 50	.....	
Dover	4 00	4 00	.....	
Londonderry	383 58	383 58	.....	
Lyons	3,500 00	9,433 50	3 73	Inclusive of consular clerk's salary.
St. Etienne	*2,060 73	2,592 50	.....	
Malaga	1,500 00	1,389 93	2 15	
Almeria	296 25	296 25	.....	
Marbella	2 00	2 00	.....	
Malta	1,500 00	228 47	60 92	
Manchester	3,000 00	21,793 97	.....	
Manila	730 00	730 00	.....	
Cébu	22 00	22 00	.....	Returns for first and second quarters 1875 not received.
Iloilo	307 51	307 51	.....	Returns for second quarter 1875 not received.
Mannheim	1,929 35	3,074 25	5 38	Inclusive of additional compensation when fees reach $3,000 per annum.
Kehl	936 50	936 50	.....	
Manzanillo, Mexico	278 90	278 90	.....	
Maracaibo	1,820 87	1,820 87	.....	
Maranham	1,095 09	154 53	.....	Inclusive of transit salary.
Marseilles	2,500 00	3,225 48	124 52	
Cette	815 59	815 59	.....	
Toulon	27 50	27 50	.....	
Matamoras	2,000 00	713 82	.....	
Santa Cruz Point	*2,000 00	2,887 50	.....	
Matanzas	3,000 00	5,566 62	.....	
Cardenas	*1,608 76	5,029 90	.....	
Sagua la Grande	*1,608 77	3,190 00	.....	
Mazatlan	1,166 34	1,166 34	.....	
Medellin	.....	.....	.....	No returns.
Melbourne	4,500 00	2,685 39	41 03	
Port Adelaide	193 42	193 42	.....	
Albany	79 15	79 15	.....	
Merida	482 00	482 00	.....	
Progreso	388 08	388 08	.....	
Messina	1,616 67	2,695 09	.....	Inclusive of widow's allowance upon death of consul.
Catania	77 95	77 95	.....	Partial returns.
Siracuse	1 00	1 00	.....	Do.
Gioja	.....	.....	.....	No fees; partial returns.
Mexico	2,000 00	219 00	.....	
Mier	566 00	566 00	.....	
Milan	1,000 00	290 00	15 71	
Minatitlan	.....	.....	.....	No returns.
Monterey	383 63	383 63	.....	
Montevideo	2,000 00	1,956 97	60 06	
Montreal	4,000 00	3,850 98	.....	
Mormingford	309 50	309 50	.....	
Muntington	229 50	229 50	.....	
Moose Rivers	200 00	200 00	.....	
Natal	137 50	137 50	.....	
Nassau	6 50	6 50	.....	Returns for first and second quarters 1875 not received.
Nicaragua	.....	.....	.....	No returns.
Nice	1,500 00	1,319 70	23 10	
Nicolaieff	3,000 00	398 74	171 70	
Nice	1,500 00	225 00	43 42	

Statement of consular fees, consular salaries, and emoluments to officers, &c.—Continued.

Consulates, consular agencies, &c.	Salary and emoluments.	Fees.	Loss.	Remarks.
L'Orient	$18 50	$18 50	.....	
St. Nazaire	20 41	20 41	.....	
Naples	1,500 00	1,341 61	$11 41	
Castelamare	545 00	545 00	.....	
Pozzuoli	29 63	29 63	.....	
Nassau	2,000 00	1,490 59	.....	
Dunmore town	270 20	270 20	.....	
Green Turtle Bay	68 12	68 12	.....	
Inagua	48 85	48 85	.....	
San Salvador	107 45	107 45	.....	
Newcastle-upon-Tyne	1,500 00	1,205 50	7 25	
Sunderland	391 31	391 31	.....	
Carlisle	362 40	362 40	.....	
Hartlepool	76 78	76 78	.....	
New-Chwang	363 46	363 46	.....	
Nice	1,500 00	361 00	49 43	
Mentone	115 00	115 00	.....	
Monaco	.....	.....	.....	No fees.
Ningpo	3,500 00	441 80	8 02	
Nuevo Laredo	1,110 00	1,110 00	.....	
Nuremberg	2,000 00	5,154 50	.....	
Bamberg	471 00	471 00	.....	To October 31, 1874.
Oajaca	26 00	26 00	.....	
Odessa	2,197 80	172 65	273 03	Inclusive of instruction and transit salary
Poti and Tiflis	12 00	12 00	.....	
Rostoff	40 00	40 00	.....	
Taganrod	87 50	87 50	.....	
Nicolaieff	19 50	19 50	.....	
Omoa and Truxillo	1,042 58	96 85	.....	
Oporto	1,500 00	313 24	82 79	No fees received at agencies.
Osaka and Hiogo	2,250 00	1,332 89	135 14	Returns for second quarter 1875 not received.
Padang	131 88	131 88	.....	Returns for fourth quarter 1874 and second quarter 1875 not received.
Palermo	2,123 53	4,215 63	35 13	Inclusive of instruction and transit salary, and of additional salary when fees reach $3,000 per annum.
Licata	47 75	47 75	.....	
Girgenti	38 21	38 21	.....	
Marsala	46 55	46 55	.....	
Trapani	126 00	126 00	.....	
Panama	8,000 00	1,890 85	.....	
Para	1,000 00	1,713 80	.....	
Paramaribo	722 55	722 55	.....	
*Paris	7,500 00	47,834 50	2 42	Inclusive of consular clerk's salary.
Lille	697 00	697 00	.....	
Calais	476 00	476 00	.....	
Patras	214 50	214 50	.....	
Cephalonia	5 00	5 00	.....	
Syra	20 00	20 00	.....	
Corfu	21 50	21 50	.....	
Zante	24 50	24 50	.....	
Pernambuco	2,000 00	1,467 16	80 70	
Ceara	51 13	51 13	.....	
Maceio	34 58	34 58	.....	
Paraiba	70 90	70 90	.....	
Pictou	1,125 00	438 75	.....	Returns for second quarter 1875 not received.
Glace Bay	337 67	337 67	.....	Do.
Cow Bay	165 50	165 50	.....	Do.
Lingan	96 83	96 83	.....	Do.
Cape Canso	93 50	93 50	.....	Do.
Port Hastings	37 46	37 46	.....	Do.
North Sydney	33 15	33 15	.....	Do.
Sydney	13 43	13 43	.....	Do.
Piedras Negras	378 50	378 50	.....	
Plymouth	65 00	65 00	.....	
Guernsey	12 00	12 00	.....	Returns for first and second quarters 1875 not received.
Dartmouth	2 00	2 00	.....	Do.
Jersey	2 00	2 00	.....	Do.
Brixham	.....	.....	.....	No fees; returns for first and second quarters 1875 not received.
Port Louis, Mauritius	2,000 00	515 00	72 00	
Réunion	30 90	30 90	.....	From April 1, 1875, to June 30, 1875.
Port Mahon	1,500 00	31 88	85 46	
Port Said	1,125 00	10 50	70 62	Returns for second quarter 1875 not received.
Port Sarnia	1,500 00	952 00	.....	
London	*1,311 00	1,311 00	.....	

Statement of consular fees, consular salaries, and emoluments to officers, &c.—Continued.

Consulates, consular agencies, &c.	Salary and emoluments.	Fees.	Loss.	Remarks.
Port Stanley	$1,500 00	$880 83	$51 95	
Prague	2,396 72	3,703 49		Inclusive of instruction and transit salary.
Prescott	1,500 00	903 50	3 81	
Brockville	*1,129 00	1,129 00		
Morrisburgh	777 50	777 50		
Cornwall	680 00	680 00		
Ottawa	*1,682 50	1,682 50		
Presidio del Norte				No returns.
Prince Edward Island	1,500 00	935 51	2 87	
Cascumpec	70 00	70 00		
Georgetown	5 00	5 00		
Summerside	104 50	104 50		
Puerto Cabello	1,460 31	1,460 31		
Quebec	1,500 00	557 04	13 40	
Rheims	1,568 00	1,568 00		
Rio Grande do Sul	1,000 00	591 54		
Rio Hacha	172 16	172 16		
Rio de Janeiro	6,831 52	9,679 12		Inclusive of instruction and transit salary.
Rome	3,820 65	986 00	208 39	Inclusive of consular clerk's salary.
Rosario	839 57	839 57		
Rotterdam	2,000 00	2,163 86	18 19	
Scheidam	*1,895 00	1,895 00		
Flushing				No fees.
Sabanilla	1,000 00	2,376 67		
Samana	72 26	72 26		From January 1, 1875, to June 30, 1875.
San Andréas	177 10	177 10		
San Blas	58 60	58 60		Returns for first and second quarters 1875 not received.
San Dimas				No returns.
San José and Cape St. Lucas	37 00	37 00		
San José, Costa Rica				No returns.
San Juan del Norte	1,000 00	373 54		
San Juan, Porto Rico	2,000 00	645 09		
Ponce	*1,473 96	1,473 96		
Aquadilla	227 08	227 08		
Guayama	721 22	721 22		
Naguabo	332 04	332 04		
Fajardo	177 35	177 35		
Arecibo	390 11	390 11		
Mayagues	*1,315 05	1,315 05		
Vieques	11 20	11 20		
San Salvador	45 00	45 00		
La Libertad	37 50	37 50		No returns for fourth quarter 1874 and first and second quarters 1875.
Santa Cruz	1,500 00	145 01		
Fredericksted	328 50	328 50		
Santa Martha	35 23	35 23		Returns incomplete.
Santander	60 12	60 12		
Gijon	11 37	11 37		
Santiago, Cape Verde Islands	1,193 20	80 50	102 27	Inclusive of instruction and transit salary.
Santiago de Cuba	2,500 00	790 60		
Baracoa	*1,199 28	1,199 28		
Guantanamo	476 00	476 00		
Manzanillo	181 71	181 71		
Santa Cruz	3 22	3 22		
Santos	283 33	283 33		
Seville	416 10	416 10		
Seychelles	1,500 00	130 17	69 48	
Shanghai	6,200 00	9,400 10	25 92	Inclusive of consular clerk's salary.
Sheffield	2,500 00	6,487 04		
Nottingham	*2,121 84	7,273 50		
Sierra Leone				No returns.
Singapore	2,500 00	1,894 93		
Penang	195 20	195 20		
Smyrna	2,000 00	1,411 58	65 36	
Mytilene	13 00	13 00		
Sonneberg	2,000 00	4,758 00		
Sonsonate	378 50	378 50		
Southampton	2,000 00	403 50		
Cowes	19 00	19 00		
Portsmouth	46 25	46 25		
Weymouth	4 50	4 50		
St. Bartholomew	7 68	7 68		Returns incomplete.
St. Christopher	211 36	211 36		
St. Domingo City	1,500 00	771 79		
Agua	199 02	199 02		
Puerto Plata	344 39	344 39		
St Helena, Island	1,500 00	394 96	22 18	

Statement of consular fees, consular salaries, and emoluments to officers, &c.—Continued.

Consulates, consular agencies, &c.	Salary and emoluments.	Fees.	Loss.	Remarks.
St. John's, Canada	$1,624 91	$1,872 41	.....	Inclusive of instruction salary.
Stanbridge	725 75	725 75	.....	
Clarenceville	220 00	220 00	.....	
Frelighsburg	171 00	171 00	.....	
Sutton	169 00	169 00	.....	
St. John's, Newfoundland.	642 33	642 33	.....	
St. John, New Brunswick.	2,000 00	3,955 01	$8 50	
St. Stephen	620 15	620 15	.....	
McAdam Junction.	359 25	350 25	.....	
St. George	274 43	274 43	.....	
St. Andrew's	249 86	249 86	.....	
Fredericton	238 50	238 50	.....	
Miramichi	37 50	37 50	.....	
St. Marc	358 79	358 79	.....	
St. Martin	56 32	56 32	.....	Returns incomplete.
St. Paul de Loando	628 80	18 20	.....	Returns for second quarter 1875 not received.
St. Pierre, Martinique	1,125 00	1,071 95	.....	Do.
St. Pierre, Miquelon	398 05	398 05	.....	
St. Petersburg	1,500 00	437 00	122 60	Returns for second quarter 1875 not received.
St. Thomas	2,809 06	2,613 31	.....	Inclusive of instruction and transit salary.
Stettin	1,126 77	261 76	36 12	Do.
Dantzic	72 04	72 04	.....	
Memel	30 00	30 00	.....	
Stockholm	256 67	256 67	.....	
Christianstad	.....	.....	.....	No fees. Returns imperfect.
Gefle	20 04	20 04	.....	Returns imperfect.
Norrköping	4 00	4 00	.....	Do.
Sundsvall	.....	.....	.....	No fees. Returns imperfect.
Stuttgart	1,702 89	2,075 50	.....	Inclusive of instruction and transit salary.
Swatow	4,284 75	322 61	407 77	Do.
Sydney	1,608 40	1,608 40	.....	
Newcastle	*1,439 02	1,439 02	.....	
Tahiti	1,000 00	518 29	.....	
Talcahuano	750 00	200 94	.....	Returns for second quarter 1875 not received.
Tamatave, Madagascar	1,937 55	27 50	108 94	Inclusive of instruction and transit salary. Returns for second quarter 1875 not received.
Tampico	1,500 00	569 77	.....	
Tuxpan	*1,005 54	1,005 54	.....	
Tangier	3,000 00	.....	64 93	
Taranto	.....	.....	.....	No fees.
Teneriffe	223 79	223 79	.....	
Palma	115 15	115 15	.....	Returns for second quarter 1875 not received.
Tetuan	.....	.....	.....	No returns.
Tien-Tsin	3,500 00	244 14	505 20	
Toronto	2,000 00	2,553 50	.....	
Port Hope	*1,612 00	1,612 00	.....	
Cobourg	577 50	577 50	.....	
Whitby	401 00	401 00	.....	
Trieste	2,000 00	1,288 10	.....	
Fiume	24 94	24 94	.....	
Trinidad de Cuba	2,500 00	680 51	6 41	
Cienfuegos	*2,105 28	2,506 73	.....	
Trinidad, Island	629 20	629 20	.....	Returns for second quarter 1875 not received.
Tripoli	2,250 00	.....	.....	Do.
Tunis	3,000 00	13 00	.....	No fees received at agencies.
Tunstall	2,500 00	6,024 84	.....	
Turk's Island	2,000 00	694 70	52 21	
Cockburn Harbor	250 63	250 63	.....	
Salt Cay	349 08	349 08	.....	
Valencia	1,954 91	8 00	.....	Inclusive of instruction and transit salary.
Grao	754 05	754 05	.....	
Valparaiso	3,262 71	1,557 86	.....	Inclusive of instruction salary.
Venice	1,000 00	489 63	50 99	
Vera Cruz	3,000 00	1,784 76	.....	
Verviers and Liege	1,414 40	812 00	16 69	
Victoria	2,850 00	3,265 68	3 88	
Vienna	3,000 00	4,159 00	.....	
Brunn	322 50	322 50	.....	
Pesth	23 50	23 50	.....	
Warsaw	.....	.....	.....	No returns.
Windsor, Nova Scotia	1,000 00	748 61	.....	
Yarmouth	293 00	293 00	.....	

Statement of consular fees, consular salaries, and emoluments to officers, &c.—Continued.

Consulates, consular agencies, &c.	Salary and emoluments.	Fees.	Loss.	Remarks.
Kempf	$197 53	$197 53	.....	
Cornwallis	97 50	97 50	.....	
Annapolis	72 55	72 55	.....	
Wolfville	54 00	54 00	.....	
Digby	18 50	18 50	.....	
Walton	17 50	17 50	.....	
Parrsboro	17 00	17 00	.....	
Windsor, Canada	1,500 00	1,238 25	.....	
Chatham	*1,075 50	1,075 50	.....	
Wallaceburg	839 50	839 50	.....	
Amherstburg	414 00	414 00	.....	
Duart	229 50	229 50	.....	
Winnipeg	1,500 00	447 82	.....	
Zacatecas	8 00	8 00	.....	Returns for first and second quarters 1875 not received.
Zanzibar	361 30	109 24	.....	Returns imperfect.
Zurich	2,000 00	3,804 50	.....	
St. Gall	*2,000 00	3,696 50	.....	
Total	541,363 11	697,988 49	$7,809 36	

* $1,000 is compensation to the consular agent, and the remainder, after deducting the agent's official stationery and postage, went to the consul.

RECAPITULATION.

Total fees received		$697,988 49
Salaries, &c., to consular officers	$541,363 11	
Loss by exchange	7,809 36	
		549,172 47
Excess of fees over salaries and loss by exchange		148,816 02

Statement of the actual expenditure by United States consuls for the hire of clerks during the fiscal year ended June 30, 1875, and allowed from consular fees under act approved June 11, 1874.

Consulates.	Amount.
Belfast	$1,200 00
Beirut	219 73
Berlin	561 00
Birmingham	1,200 00
Bremen	750 00
Bradford	1,400 00
Chemnitz	1,000 00
Dresden	1,200 00
Fayal	.....
Frankfort-on-the-Main	250 00
Havana	1,500 00
Hamburg	1,200 00
Havre	1,200 00
Leipsic	583 00
Leith	800 00
Liverpool	1,089 48
London, ($1,500 suspended, vouchers not received)	437 50
Lyons	375 00
Marseilles	1,000 00
Manchester	1,500 00
Montreal	1,140 00
Naples	.....
Nuremberg	1,000 00
Paris	1,750 00
Sheffield	1,000 00
Shanghai	1,000 00
Sonneberg	1,000 00
Stuttgart	422 00
Tunstall	800 00
Vienna	1,200 00
Total	26,777 71

Statement showing the amount expended by the consular officers of the United States for the relief of seamen, the money received by said officers for extra wages, and the loss by exchange incurred by them in drawing for balances due them during the fiscal year ended June 30, 1875.

Consulate.	Expended.	Received.	Loss by exchange.
Antwerp	$36 64	$204 63	
Acapulco	699 49		
Auckland, New Zealand	115 87	20 00	
Apia, Navigator Islands	97 98		$24 49
Amsterdam	100 82	60 00	
Aspinwall	551 00		
Belfast		45 00	
Barcelona	67 16	108 91	
Bermuda		235 40	
Batavia	1,179 21	763 06	35 12
Buenos Ayres	916 76	427 11	
Barbadoes	416 42	440 88	
Bremen	410 31	194 87	
Bombay		43 79	
Bristol	122 88	66 49	
Belize, Honduras	68 25		
Bradford, England	1 36		
Bathurst, west coast of Africa	52 27	48 00	
Beirut, Syria	15 47		
Cadiz	891 10	236 26	56 05
Cardiff, Wales	207 80	100 00	
Curaçoa, West Indies	35 50	210 00	
Cork	740 66	50 00	
Cape Town, Cape of Good Hope	661 46	120 00	36 32
Calcutta	301 70	1,027 06	
Copenhagen	111 30	165 00	
Callao	1,109 10	290 00	
Charlottetown, Prince Edward Island	41 15		
Demerara		45 00	
Dundee, Scotland	3 25	150 00	
Dublin		120 00	
Fayal, Azores	848 37	736 06	
Glasgow	29 06		
Gaboon, Africa		20 00	
Gaspé Basin, Canada	24 70		
Guadeloupe, West Indes	43 00		
Guayaquil	604 95		
Genoa	41 99		
Gibraltar	8 46		
Havre	456 45	375 00	2 19
Halifax, Nova Scotia	415 45		
Hamburg		716 26	
Hobart Town, Tasmania	9 00	39 00	
Honolulu	562 91	2,403 48	
Hakodadi, Japan		370 00	
Havana	1,000 82	760 86	
Hong-Kong	1,405 37	752 75	
Kingston, Jamaica	302 79	197 45	
Kanagawa	295 36	744 91	
London	198 33	2,318 73	
Liverpool	1,195 97	19,554 96	
Leeds, England	4 13		
Leith, Scotland		515 00	
Leghorn		40 00	
Lambayeque, Peru	80 43		
Matanzas, Cuba	371 25	393 25	
Montevideo	1,149 25	913 99	
Mauritius	493 46	150 00	16 79
Mazatlan	362 75	175 00	
Minatitlan	222 50		
Manila	592 75	203 23	25 15
Messina	130 15		
Melbourne	409 70	1,254 56	
Malta	10 90	28 36	
Malaga	1,821 28	54 00	
Manchester	52 46		
Marseilles	1,056 80	501 30	
Nassau, Bahamas	4,587 37		20 00
Newcastle-upon-Tyne	213 62		6 58
Naples		25 00	
Oporto	81 07	75 00	
Paramaribo	1,491 50	49 04	
Palermo		5 00	
Pernambuco, Brazil	1,428 91		128 05
Pictou, Nova Scotia	449 15		4 16
Port Stanley, Falkland Islands	223 28	318 66	

Statement showing the amount expended by the consular officers, &c. Continued.

Consulate.	Expended.	Received.	Loss by exchange.
Panama	$935 50	$560 00	
Para, Brazil		166 00	
Quebec	43 90		
Rio de Janeiro	235 00	437 72	
Rio Grande, Brazil		23 00	
Rotterdam	104 40	75 00	
Rosario, Argentine Republic	78 51	123 05	
Singapore	1,158 50	1,775 16	
Santiago de Cuba	91 00		
Santiago, Cape Verde Islands	461 08	60 00	$43 63
Shanghai	30 28	787 71	
Saint Helena	205 50	507 83	
Seychelles	304 58	200 00	7 93
Stettin, Prussia		25 48	
Southampton	15 44		
Smyrna		15 00	
San Andreas	43 00		
San Juan, Porto Rico	123 84		
San Juan del Norte	129 40	125 00	
Santa Cruz, West Indies	147 49	75 00	
Saint John, New Brunswick	24 60	168 00	
Saint Martin, West Indies	59 70		
Saint Petersburg	7 08		
Saint Thomas, West Indies	66 35	20 00	
Sheffield, England	8 74		
Swatow	10 00		
Sidney, Australia	148 92	964 13	
Tahiti, Society Islands	4,047 75	102 00	
Talcahuano, Chili	854 75	210 00	
Tampico	409 40	764 80	
Teneriffe	174 20		19 37
Trieste	65 21	125 21	
Trinidad de Cuba	153 76	386 00	
Turk's Island	254 13		10 16
Valparaiso	1,486 00	554 75	
Vera Cruz	169 55	46 61	
Victoria, Vancouver's Island	518 21		
Windsor, Nova Scotia	287 33	15 00	
Total	44,486 64	47,174 76	435 99

RECAPITULATION.

Amount paid by consular officers for relief of seamen	$44,486 64
Amount paid by consular officers for loss by exchange	435 99
Amount paid by the Treasury for passage of seamen	9,364 50
Total	54,287 13
Amount received by consuls	47,174 76
Excess of disbursements over receipts	7,112 37

REPORT OF THE SIXTH AUDITOR OF THE TREASURY.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST-OFFICE DEPARTMENT,
October 20, 1875.

SIR: I have the honor to submit the following report of the business operations of this Office for the fiscal year ended June 30, 1875. My annual report to the Postmaster-General, now in course of preparation, will exhibit in detail the financial transactions of the Post-Office Department during the past fiscal year.

A comparison of the tables of the present report with those contained in the report made by my predecessor for the fiscal year ended June 30, 1874, will show a large increase of business in each division.

EXAMINING DIVISION—BENJAMIN LIPPINCOTT, CHIEF OF DIVISION.

This division receives and audits the quarterly accounts-current of all post-offices in the United States. It is divided into four subdivisions,

viz: the opening-room, the stamp-rooms, the examining corps proper, and the error-rooms.

1. *The opening-room.*—All returns, as soon as received, are opened, and if found in order, according to regulations, are entered on the register, carefully folded and tied, and then forwarded to the stamp-rooms.

The number of quarterly accounts-current received during each quarter of the fiscal year ended June 30, 1875, was as follows:

Third quarter, 1874	33,630
Fourth quarter, 1874	34,642
First quarter, 1875	34,946
Second quarter, 1875	35,856
Total	139,076

Increase over last fiscal year, 6,289.

2. *The stamp-rooms.*—The quarterly returns received from the opening-room are divided alphabetically among eight stamp-clerks, whose duties consist in comparing the stamp-statements of the postmasters in the accounts-current with their own books, and the returns made to them from the stamp-division of the finance office, whence stamp-orders are issued and receipts for the same received and forwarded to the stamp-clerk. The returns thus approved or corrected are passed to the examiners. All accounts from offices of the first and second classes are passed through the various subdivisions of the Office in advance of other returns, so that they may reach the chief of division and his assistants with as little delay as possible.

The number of accounts examined and settled by the stamp-clerks for each quarter of the fiscal year was as follows:

Third quarter, 1874	33,011
Fourth quarter, 1874	34,242
First quarter, 1875	34,557
Second quarter, 1875	34,873
Total	136,683

Increase over last fiscal year, 5,384.

3. *The examining-corps proper* is composed of seventeen clerks, among whom the returns received from the stamp-rooms are divided by sections, each comprising several States or parts of States.

The average number to each section is about 2,000. After the examination of the accounts-current and the stamp-account, reviewing and refooting the transcript of mails received, and examining all vouchers belonging to that portion of the work, the balance is drawn on all accounts of the third, fourth, and fifth classes. The returns thus examined and completed are forwarded to the registering division to be entered upon its books.

The number of accounts examined and sent to the registering division for the fiscal year was as follows:

Third quarter, 1874	33,011
Fourth quarter, 1874	34,242
First quarter, 1875	34,557
Second quarter, 1875	34,873
Total	136,683

Increase over last fiscal year, 5,384.

4. *The error-rooms* contain five clerks, who review and re-examine the error-accounts received from the registering division, and forward to each postmaster a copy of his account as stated by him, and as audited and corrected by the Office.

The number of accounts corrected and copied during the fiscal year was as follows:

Third quarter, 1874	5,213
Fourth quarter, 1874	6,030
First quarter, 1875	5,739
Second quarter, 1875	4,277
Total	21,259

Each subdivision reports weekly to the chief of division, and monthly through that officer to the deputy auditor, the progress of the work, so that the exact amount of labor performed by each clerk is clearly ascertained.

All vouchers relative to allowances made by the Post-Office Department for clerk-hire, lights, fuel, rent, stationery, &c., at post-offices of the first and second classes, are forwarded at the commencement of each quarter to the chief of division and his assistant for examination. A statement is then prepared, showing the vouchers received, the amount allowed, and the amount suspended, when found to be in excess of the allowance.

On receipt of the returns from the examiners these accounts are reviewed, and the amount allowable added, and the balance drawn by the chief of division.

The number of post-offices of the first and second classes which have received allowances for clerk-hire, rent, &c., was 395.

The number of offices of the second class having an allowance for clerk-hire only was 214.

The number of offices having an allowance for clerk-hire to aid in separating the mails (independent of the number above stated) was 553.

Total number of offices of all classes receiving allowances and approved by the chief of division was 1,162.

The expense-accounts of the offices of the first and second classes were regularly entered by the chief of division and his assistant on the expense-register, and show quarterly the amount of vouchers received, amount allowed, and amount suspended; copies of which were forwarded to each postmaster.

Attached to the examining division is a corresponding clerk, whose duty consists in corresponding with postmasters relative to errors in their accounts-current and in making day-book entries, &c.

The amount involved in the settlement of the quarterly accounts-current of postmasters during the fiscal year was as follows:

Third quarter, 1874	$6,158,466 33
Fourth quarter, 1874	6,426,022 40
First quarter, 1875	6,664,424 20
Second quarter, 1875	6,410,731 81
Total	25,659,644 74

Increase over last year, $992,785.72.

The labors of the examining division for the last fiscal year have been fully completed; all accounts received in proper form have been examined and passed to the registering division. At no period has the work been more perfect in all its details. Not only has there been a decided improvement in the preparation of returns by postmasters, particularly those of first and second class offices, but by judicious changes in the office, the efficiency of the examining corps has been greatly increased.

REGISTERING DIVISION—JOSEPH B. WILL, CHIEF OF DIVISION.

Thirteen clerks are employed upon this division, who receive from the examing division the quarterly accounts-current of all the post-offices in the United States, re-examine and register them, placing each item of revenue and expenditure under its appropriate head, add and recapitulate the same, and exhibit in the register ending June 30 of each year, the total amount of receipts and expenditures for the fiscal year.

During the fiscal year ended June 30, 1875, the number of accounts registered and amounts involved therein were as follows:

Third quarter, 1874	33,011	$6,158,466 33
Fourth quarter, 1874	34,242	6,426,022 40
First quarter, 1875	34,557	6,664,424 20
Second quarter, 1875	34,873	6,410,731 81
Total	136,683	25,659,644 74

Increase over last year, 5,384; $992,785.72.

To this division is also assigned the duty of entering in the change-books, prepared for the purpose, all changes of postmasters, establishment, re-establishment, discontinuance, and change of name of post-offices reported from the appointment office. The number thus entered during the fiscal year was as follows:

Third quarter, 1874	2,276
Fourth quarter, 1874	2,530
First quarter, 1875	2,857
Second quarter, 1875	3,028
Total	10,661

Decrease from last fiscal year, 853.

The work of this division is in excellent condition. The members of the division have performed their duties promptly and accurately. The quarterly accounts-current received from each office have been registered to June 30, 1875, and the footings and recapitulations completed.

BOOK-KEEPERS' DIVISION—JAMES T. SMITH, CHIEF OF DIVISION.

To this division is assigned the duty of keeping the ledger-accounts of the Department, embracing postmasters, late postmasters, contractors, late contractors, and accounts of a general, special, and miscellaneous character.

This work requires the services of fifteen clerks, who are employed as follows, viz: Nine book-keepers of postmasters' accounts; three book-keepers of contractors' accounts; one clerk in charge of cash-book, deposit-book, warrant-register, and ledger of warrants and deposits; one assistant chief, who is also disbursing-clerk, in charge of stamp-journal, transfer-journal, and who makes the day-book entries on reports approved by the Auditor. The chief of division has general supervision, and also keeps the accounts with the several appropriations, receipts and expenditures of the Department, Executive Departments for official stamps, foreign governments, special agents, consuls, foreign mail-agents, &c.

The auxiliary books, from which postings are made quarterly, are as follows: 13 registers of postmasters' quarterly returns, 43 pay-books, (contractors' accounts,) 9 journals, 1 register of warrants, 3 registers of Postmaster-General's drafts, 1 stamp-journal, 1 cash-book, 1 deposit-book, 1 Auditor's draft-book, 1 transfer-journal, 1 money-order transfer-book, 12 registers of mail-messenger and special-mail service, 1 route-agents'

book, 1 letter-carriers' book, 1 special agents' fare-book; total, 90 books.

Postmasters' accounts of the first, second, and third classes, and all contractors' accounts, are balanced quarterly; all others at the end of the fiscal year. The work of the division is in a satisfactory condition, and fully up to the requirements of the office.

For a detailed statement showing the number of accounts by sections, and, to a limited extent, the labor performed in the preparation of auxiliary books, reference is made to the following table:

Ledgers of mail-contractors' accounts.

Number of section.	States.	Number of ledgers.	Current accounts.	Day-book entries journalized.	Accounts journalized from transportation sheets.
1	Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Virginia, and West Virginia	4	2,050	3,301	10,228
2	Maryland, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Texas, Arkansas, Tennessee, Illinois, Indiana, and Wisconsin	4	2,044	4,929	13,500
3	Ohio, Kansas, Michigan, Kentucky, Iowa, Missouri, Minnesota, California, Oregon, Nebraska, Nevada, and the Territories	4	2,044	4,241	12,234
	Total	12	6,138	12,471	35,962
	Increase over last fiscal year	.....	161	6,143	3,355

Ledgers of postmasters' accounts.

Number of section.	States.	Number of ledgers.	Current accounts.	Late accounts.
1	Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, and Mississippi	4	3,618	572
2	New York and New Jersey	4	3,495	600
3	Pennsylvania, Delaware, Maryland, and District of Columbia	4	4,195	910
4	Virginia, West Virginia, North Carolina, South Carolina, and Georgia	5	4,350	1,112
5	Florida, Alabama, Louisiana, Texas, Arkansas, and Missouri	5	4,407	800
6	Kentucky, Tennessee, and Illinois	4	4,000	799
7	Ohio and Indiana	4	3,751	820
8	Michigan, Wisconsin, and Iowa	6	3,780	1,069
9	California, Oregon, Minnesota, Kansas, Nebraska, Nevada, and the Territories	5	4,520	216
	Total	41	36,116	6,898
	Increase over last fiscal year	.....	1,361	1,108

Number of entries in stamp-journal	6,552
Number of entries in day-books	6,168
Number of entries in deposit-book	7,456
Number of entries in cash-book	4,843
Number of entries in transfer-journal	4,128
Total	29,147

Increase over last fiscal year, 3,549.

STATING DIVISION—WILLIAM H. GUNNISON, CHIEF OF DIVISION.

The general postal accounts of postmasters and those of late postmasters, until fully stated, are in charge of this division. The number

of accounts is 58,929, an increase of 8,180 during the year, and an average of 3,683 to each of the sixteen sections.

The offices of the first, second, and third classes are called "presidential," and from them are derived nineteen-twentieths of the postal revenues. It is necessary, therefore, that the accounts of the postmasters at these offices should receive early attention, in order that any failure to pay indebtedness, or to comply with instructions, may be promptly ascertained and acted on. During the first two months of each quarter the items of the "presidential" accounts for the preceding quarter have been stated from the earliest records made in the Office, then compared with the statements rendered by postmasters, the differences investigated, and special instructions given, that the postmasters may use the audited balances in making their payments and in rendering their accounts for the current quarter.

Those of the general postal accounts of postmasters at offices of the fourth class showing debit balances of $10 or more, as stated from the ledgers each quarter, have had the items of the succeeding quarter added, as in the case of "presidential" offices; if such sums were still due, special instructions were given to include the amounts in the payments for the current quarter. The items of the remaining accounts of the fourth class were stated as soon as they could be obtained from the ledgers. Statements of such of them as showed debit balances of $1.00 or more, when stated and balanced with the ledgers to the close of the fiscal year ending June 30, 1874, were sent to the postmasters with instructions, before the 31st of December, 1874.

The accounts of late postmasters have been revised monthly in order to secure an early adjustment; and all such accounts have recently been fully stated to the latest dates, for use in the annual report of the Office to the Postmaster-General.

The keeping of the record of statements rendered each quarter by the "presidential" offices, the preparing of circulars of instructions to postmasters, and various other duties, are assigned to a miscellaneous clerk. To the chief of division is assigned the general supervision of the division, the correspondence on the general postal accounts of postmasters at "presidential" offices, and on such special cases as may be referred to him.

Although two sections were added in November last, the increase in the number of accounts—particularly those of late postmasters—rendered the average number on the sections even larger than during the previous year.

The condition of the work of the division is satisfactory. The details are more fully shown by the following statements:

Statement of the number of general postal accounts of postmasters, the increase in the number, and the classification of the offices, for the fiscal year ended June 30, 1875.

Number of section.	States and Territories.	Presidential.					Fourth class.					Number of accounts in each State and Territory.	Increase in each State and Territory.	Number of accounts in each section.	Increase in each section.
		Draft.	Collection.	Deposit.	Total.	Increase.	Collection.	Deposit.	Special.	Total.	Increase.				
1	Maine	3	24	1	28	0	749	65	27	841	*1	869	*1		
	Vermont	5	15	1	21	0	403	49	14	466	*8	487	*8		
	Massachusetts	4	80	16	100	*3	487	107	25	619	*23	719	*26		
	Rhode Island	1	6	4	11	0	74	15	4	93	0	104	0		
	Total	13	125	22	160	*3	1,713	236	70	2,019	*32	.....	*35	2,179	*35
2	New York, A to R	12	106	22	140	*2	1,460	364	133	1,957	4	2,097	2		
	Total	12	106	22	140	*2	1,460	364	133	1,957	4	.....	.....	2,097	2
3	Pennsylvania, A to Q	3	91	1	95	0	1,946	187	22	2,155	48	2,250	48		
	Total	3	91	1	95	0	1,946	187	22	2,155	48	.....	.....	2,250	48
4	Wisconsin	3	50	3	56	0	1,071	74	33	1,178	26	1,234	26		
	West Virginia	1	9	0	10	0	686	45	8	739	51	749	51		
	Connecticut	3	34	7	44	0	290	85	17	391	*6	435	*6		
	Total	7	93	10	110	0	2,046	204	58	2,308	71	.....	.....	2,418	71
5	North Carolina	1	0	12	13	*3	990	36	25	1,060	105	1,073	102		
	South Carolina	0	2	11	13	0	445	7	3	455	30	468	30		
	Georgia	3	0	21	24	4	643	35	26	704	58	728	62		
	Total	4	2	44	50	1	2,087	78	54	2,219	193	.....	.....	2,269	194
6	Kansas	1	36	1	38	0	937	60	27	1,024	61	1,062	61		
	Minnesota	2	20	1	23	0	727	23	41	791	25	814	25		
	Mississippi	0	20	1	21	*2	495	36	9	540	24	561	22		
	Total	3	76	3	82	*2	2,159	119	77	2,355	110	.....	.....	2,437	108

* Decrease.

Statement of the number of general postal accounts of postmasters, &c.—Continued.

Number of section.	States and Territories.	Presidential.					Fourth class.					Number of accounts in each State and Territory.	Increase in each State and Territory.	Number of accounts in each section.	Increase in each section.
		Draft.	Collection.	Deposit.	Total.	Increase.	Collection.	Deposit.	Special.	Total.	Increase.				
7	Ohio	10	95	7	112	*1	1,917	137	52	2,106	60	2,218	59		
	Total	10	95	7	112	*1	1,917	137	52	2,106	60	.....	.....	2,218	59
8	Illinois	3	131	2	136	0	1,563	121	38	1,742	35	1,878	35		
	Oregon	0	6	0	6	*2	235	4	7	206	12	272	12		
	District of Columbia	0	0	2	2	0	4	0	0	4	1	6	1		
	Total	3	137	4	142	*2	1,842	125	45	2,012	48	.....	.....	2,156	48
9	California	0	25	7	32	0	585	76	40	701	53	733	53		
	Missouri	0	45	1	46	0	1,325	71	88	1,484	70	1,530	70		
	Total	0	70	8	78	0	1,910	147	128	2,185	123	.....	.....	2,263	123
10	Kentucky	3	24	1	28	0	947	42	47	1,046	1	1,064	1		
	Texas	2	28	0	30	0	774	35	23	832	22	862	22		
	Delaware	1	4	1	6	0	91	3	1	95	*1	101	*1		
	Total	6	56	2	64	0	1,812	80	71	1,963	22	.....	.....	2,027	22
11	Virginia	1	21	2	24	0	1,236	103	40	1,379	44	1,403	44		
	New York, S to Z	3	30	6	39	0	521	124	24	669	0	708	0		
	Total	4	51	8	63	0	1,757	227	64	2,048	44	.....	.....	2,111	44
12	Indiana	5	60	2	67	0	1,334	77	27	1,438	35	1,505	35		
	Pennsylvania, R to Z	4	32	1	37	0	775	59	10	844	0	881	0		
	Total	9	92	3	104	0	2,109	136	37	2,282	35	.....	.....	2,386	35
13	Alabama	3	13	1	17	3	697	63	6	766	43	783	46		
	Iowa	12	66	2	80	0	1,171	92	17	1,280	10	1,360	10		
	Total	15	79	3	97	3	1,868	155	23	2,046	53	.....	.....	2,143	56

14	Tennessee	0	8	1	9	0	589	33	19	641	41	650	41		
	Florida	3	16	0	19	0	880	75	84	1,016	41	1,035	41		
	Arkansas	1	5	0	6	0	308	13	9	322	20	334	20		
	Louisiana	0	5	1	6	0	188	4	6	198	53	204	53		
	Total	4	34	2	40	0	1,943	125	115	2,183	155	.....	.....	2,223	155
15	Michigan	10	55	5	70	0	1,090	73	35	1,138	30	1,206	30		
	Maryland	0	11	3	14	0	564	35	6	605	34	619	34		
	New Hampshire	3	14	6	23	0	365	41	8	414	1	437	1		
	Total	13	80	14	107	0	1,959	149	49	2,157	65	.....	.....	2,264	65
16	New Jersey	1	45	0	46	0	509	64	38	611	15	657	15		
	Nebraska	1	10	3	14	0	503	32	35	570	64	584	64		
	Nevada	0	7	2	9	1	60	14	6	80	*2	89	1		
	Alaska	0	0	0	0	0	0	2	1	3	0	3	0		
	Arizona	0	3	0	3	0	31	0	9	40	8	43	8		
	Colorado	1	6	2	9	0	141	16	18	175	9	184	9		
	Dakota	0	2	0	2	0	125	0	7	132	16	134	16		
	Idaho	0	2	0	2	0	63	1	4	68	2	70	2		
	Montana	0	4	0	4	0	84	0	10	94	6	98	6		
	New Mexico	0	3	0	3	0	64	0	3	67	11	70	11		
	Utah	0	2	1	3	0	179	7	8	194	33	197	33		
	Washington	0	3	0	3	0	137	3	12	152	5	155	5		
	Wyoming	0	0	3	3	0	18	16	3	37	7	40	7		
	Total	3	87	11	101	1	1,914	155	154	2,223	174	.....	.....	2,324	175
														35,765	1,170

* Decrease.

Number of general postal accounts, first, second, and third classes	1,547
Number of general postal accounts fourth class	34,218
Whole number of general postal accounts for the fiscal year	35,765

Increase during fiscal year, 1,170.

Statement showing the number of changes and the condition of the general postal accounts of late postmasters for and during the fiscal year ended June 30, 1875.

	Third quarter, 1874.	Fourth quarter, 1874.	First quarter, 1875.	Second quarter, 1875.	Total.
Established	595	339	445	478	1,857
Re-established	149	137	91	143	511
Discontinued	238	276	249	290	1,053
New bonds	135	3,789	1,902	924	6,750
Miscellaneous	1,361	1,839	2,219	1,912	7,331
Total	2,469	6,380	4,906	3,747	17,502
Increase in number of changes over previous year					6,049

Statement showing the condition of general postal accounts of late postmasters for the fiscal year.

	Third quarter, 1874.	Fourth quarter, 1874.	First quarter, 1875.	Second quarter, 1875.	Total.
Number of accounts of late postmasters adjusted	2,717	2,550	1,678	5,924	12,869
Number of accounts of late postmasters unadjusted					10,295
Whole number of accounts of late postmasters					23,164
Increase in number of late accounts over last year					7,068
Increase in number of late accounts adjusted over last year					4,407

Statement of miscellaneous business.

Correspondence, &c.	Third quarter, 1874.	Fourth quarter, 1874.	First quarter, 1875.	Second quarter, 1875.	Total.
Letters received	763	727	659	1,090	3,239
Letters written	176	255	298	362	1,091
Statements, &c., received from postmasters	1,613	1,618	1,638	1,254	6,123
Reports made to Post-Office Department—delinquencies	72	302	250	175	799
Circulars prepared	4,862	3,299	4,688	3,422	16,271
Offices supplied with blanks	67	638	1,325	32	1,962
Vouchers filed	6,459	4,779	4,938	2,660	18,836

COLLECTING DIVISION—EDWARD J. EVANS, CHIEF OF DIVISION.

To this division is assigned the collection of balances due from all postmasters, late postmasters, and contractors; also the payment of all balances due to late and present postmasters, and the adjustment and final settlement of postal accounts. The average number of clerks employed is twenty, and the work of the division is apportioned as follows:

On correspondence, 4.—Their duty is to insure, as far as possible, the collection of all moneys due to the United States on postal and con-

tractors' accounts, to examine the same carefully, and explain by letter, when necessary, the correctness of the balances due thereon, and to submit for suit or criminal proceedings accounts of defaulting postmasters and contractors.

Continued daily attention, good judgment, and clever discrimination are required in this branch of the division, as is also a thorough knowledge of the entire business of the Office, and, to a degree, that of the Post-Office Department. The work has been most satisfactorily performed, as may be inferred from amounts collected on draft, shown in subjoined table.

On drafts and reports, 2.—Their duties are to locate and issue drafts for the collection of balances due by postmasters and contractors, to record the same in draft-registers, and report to the Post-Office Department for payment all balances due to late postmasters, and record the same.

This work, which involves the disbursement as well as collection of Department moneys, and is therefore one of great responsibility, is performed by the gentlemen in charge to the entire satisfaction of the Office.

On changes, 1.—His duties are to record all changes of postmasters reported to this Office from the Post-Office Department, to enter and file drafts paid, to record all accounts of late postmasters in the book of balances, and to state the final action thereon. Great care and constant watchfulness are required in the proper discharge of the labors of this desk, all of which are conscientiously bestowed by the gentleman in charge.

On letter-books, 2.—Their duty is to transcribe into their respective books all letters written by the several divisions of the Office, and transmit the same, together with all circulars relating to postmasters' accounts. This work has been performed promptly and satisfactorily.

On miscellaneous, 1.—His duties are to examine and compare with the ledgers all accounts of late postmasters, and close as "uncollectible" or by "suspense" all accounts so designated, and to assist in the preparation of the annual report to the Postmaster-General, and other duties of a miscellaneous character.

On copying, 10.—Their duties are to copy and revise all accounts of postmasters and others; to transmit in their respective circulars all accounts of late postmasters; to copy changes of postmasters; to prepare salary-books of the several post-offices, and to furnish a large portion of the material for the United States Official Register. This branch of the division is in excellent condition, and the work is performed promptly and satisfactorily.

On suits, &c., 2.—Their duties are to revise and settle the accounts of the United States attorneys, marshals, and clerks, for fees in causes arising in the Post-Office Department, and to prepare for suit all cases of defaulting postmasters and contractors. All accounts reported by the corresponding clerks have been prepared for suit and transmitted to the Department of Justice, and all accounts of fees of attorneys, marshals, and clerks submitted for settlement have been examined and reported for payment.

The regulation of the Department requiring current business to be dispatched on the day received is duly observed by this division.

I refer to the following tables for a more detailed statement of the work performed by the divisions during the fiscal year ended June 30, 1875:

Accounts of postmasters and contractors.

	Number.	Amount.
Accounts of postmasters becoming late during the period from July 1, 1873, to June 30, 1874, in charge of the division	9,137	$31,469 90
Accounts of postmasters becoming late during the fiscal year:		
Quarter ended September 30, 1874	1,530	30,489 18
Quarter ended December 31, 1874	6,223	121,956 72
Quarter ended March 31, 1875	4,341	91,467 54
Quarter ended June 30, 1875	3,169	60,978 40
Total	24,400	336,381 74
Drafts issued on present and late postmasters during the fiscal year:		
Quarter ended September 30, 1874	619	100,243 71
Quarter ended December 31, 1874	727	66,138 78
Quarter ended March 31, 1875	669	52,465 82
Quarter ended June 30, 1875	702	47,175 91
Total	2,717	266,024 22
Accounts of contractors received from the pay-division for collection, upon which drafts were issued:		
Quarter ended September 30, 1874	10	56,143 25
Quarter ended December 31, 1874	19	6,143 76
Quarter ended March 31, 1875	7	590 57
Quarter ended June 30, 1875	16	9,112 51
Total	52	71,990 09
Amount collected by drafts during the fiscal year		104,600 22
Accounts showing balances due late and present postmasters and reported to the Post-Office Department for payment:		
Quarter ended September 30, 1874	376	17,347 01
Quarter ended December 31, 1874	397	14,515 60
Quarter ended March 31, 1875	361	14,688 61
Quarter ended June 30, 1875	619	24,173 84
Total	1,753	70,725 06
Accounts of postmasters becoming late during the fiscal year, showing balances in their favor and closed by "suspense:"		
Quarter ended September 30, 1874	1,449	3,308 27
Quarter ended December 31, 1874	587	7,599 79
Quarter ended March 31, 1875	1,455	2,518 95
Quarter ended June 30, 1875		
Total	3,491	13,427 01
Accounts of postmasters becoming late during the fiscal year, showing balances due the United States and closed by "suspense:"		
Quarter ended September 30, 1874	290	436 11
Quarter ended December 31, 1874	34	55 64
Quarter ended March 31, 1875	430	122 27
Quarter ended June 30, 1875		
Total	754	614 02
Accounts of postmasters becoming late during the fiscal year, showing balances due the United States and found uncollectible.		
Quarter ended September 30, 1874	15	2,242 50
Quarter ended December 31, 1874	12	506 69
Quarter ended March 31, 1875	2	25 55
Quarter ended June 30, 1875		
Total	50	2,774 74
Accounts of late postmasters and contractors submitted for suit during the fiscal year:		
Quarter ended September 30, 1874	35	9,461 85
Quarter ended December 31, 1874	46	22,387 91
Quarter ended March 31, 1875	21	6,431 00
Quarter ended June 30, 1875	14	10,730 29
Total	116	49,811 17
Amount of collections on judgments, fines, &c., including interest, during the fiscal year		29,822 79
Accounts of United States attorneys, marshals, and clerks examined and reported for payment during the fiscal year:		
Quarter ended September 30, 1874	31	1,998 36
Quarter ended December 31, 1874	12	896 42
Quarter ended March 31, 1875	29	1,677 18
Quarter ended June 30, 1875	23	977 03
Total	95	5,549 99

Accounts copied during the fiscal year:	
Quarter ended September 30, 1874	5,183
Quarter ended December 31, 1874	6,872
Quarter ended March 31, 1875	5,326
Quarter ended June 30, 1875	5,240
Total	22,621
Number of pages of bonds and commissions copied during the fiscal year:	
Quarter ended September 30, 1874	603
Quarter ended December 31, 1874	803
Quarter ended March 31, 1875	814
Quarter ended June 30, 1875	758
Total	2,978
Number of circulars addressed and transmitted during the fiscal year:	
Quarter ended September 30, 1874	12,129
Quarter ended December 31, 1874	10,531
Quarter ended March 31, 1875	11,328
Quarter ended June 30, 1875	14,434
Total	48,422
Letters received during the fiscal year:	
Quarter ended September 30, 1874	72,398
Quarter ended December 31, 1874	81,130
Quarter ended March 31, 1875	79,123
Quarter ended June 30, 1875	89,078
Total	321,729
Letters sent during the fiscal year:	
Quarter ended September 30, 1874	43,370
Quarter ended December 31, 1874	51,505
Quarter ended March 31, 1875	50,761
Quarter ended June 30, 1875	61,228
Total	206,864
Letters recorded during the fiscal year:	
Quarter ended September 30, 1874	2,601
Quarter ended December 31, 1874	3,069
Quarter ended March 31, 1875	2,893
Quarter ended June 30, 1875	2,905
Total	11,468
Number of pages of letter-press copies made:	
Quarter ended September 30, 1874	2,763
Quarter ended December 31, 1874	3,193
Quarter ended March 31, 1875	3,024
Quarter ended June 30, 1875	2,983
Total	11,963
Letters written to postmasters and others during the fiscal year:	
Quarter ended September 30, 1874	1,555
Quarter ended December 31, 1874	2,039
Quarter ended March 31, 1875	1,859
Quarter ended June 30, 1875	1,813
Total	7,266
Number of pages of changes of postmasters during the fiscal year:	
Quarter ended September 30, 1874	192
Quarter ended December 31, 1874	348
Quarter ended March 31, 1875	248
Quarter ended June 30, 1875	222
Total	1,010

Number of pages of "balance-book" recorded during the fiscal year:	
Quarter ended September 30, 1874	142
Quarter ended December 31, 1874	465
Quarter ended March 31, 1875	345
Quarter ended June 30, 1875	235
Total	1,187
Number of pages of draft-register recorded during the fiscal year:	
Quarter ended September 30, 1874	31
Quarter ended December 31, 1874	40
Quarter ended March 31, 1875	38
Quarter ended June 30, 1875	45
Total	154
Number of pages of letter-book recorded during the fiscal year:	
Quarter ended September 30, 1874	1,506
Quarter ended December 31, 1874	1,519
Quarter ended March 31, 1875	1,678
Quarter ended June 30, 1875	1,590
Total	6,093

FOREIGN-MAIL DIVISION—ROBERT S. WIDDICOMBE, CHIEF OF DIVISION.

This division has charge of the postal accounts with foreign governments, and the accounts with steamship companies for ocean transportation of the mails.

Number of accounts of each country settled during the fiscal year and amounts involved.

Name of country.	Number.	Amount.
The United Kingdom of Great Britain and Ireland	4	$1,205,974 04
Empire of Germany	4	493,347 77
Kingdom of Belgium	3	24,060 40
Kingdom of Netherlands	4	21,830 17
Confederation of Switzerland	4	35,562 06
Kingdom of Italy	4	71,406 29
Kingdom of Denmark, for extra-national postage	4	2,365 11
Kingdom of Sweden	5	97,550 48
Kingdom of Norway	6	78,697 27
Republic of France, for extra-national postage	2	9,471 28
Total	40	2,034,264 87
Increase over last fiscal year	12	494,337 01

Number of duplicates registered during the fiscal year.

Received from—	Quarter ended Sept. 30, 1874.	Quarter ended Dec. 31, 1874.	Quarter ended Mar. 31, 1875.	Quarter ended June 30, 1875.	Sent to—	Quarter ended Sept. 30, 1874.	Quarter ended Dec. 31, 1874.	Quarter ended Mar. 31, 1875.	Quarter ended June 30, 1875.
The United Kingdom	321	273	290	326	The United Kingdom	314	319	285	352
German Empire	234	203	192	218	German Empire	220	201	157	174
Belgium	114	102	112	131	Belgium	108	106	93	97
Switzerland	67	73	80	94	Switzerland	102	92	79	79
Netherlands	45	42	45	53	Netherlands	62	61	52	55
Denmark	54	46	49	62	Denmark	58	65	50	57
France	109	106	111	135	France	75	84	81	80
Norway	58	48	43	53	Norway	53	65	52	57
Sweden	83	77	60	89	Sweden	52	65	52	57
Italy	40	36	39	47	Italy	58	54	49	49
West Indies, &c	149	197	158	164	West Indies, &c	149	185	149	159
Nova Scotia, &c	39	22	12	23	Nova Scotia, &c	52	44	35	48
Total	1,313	1,225	1,191	1,395		1,303	1,344	1,134	1,264
Increase over last fiscal year.	107	100	66	102		257	290		2
Decrease from last fiscal year.								24	

Total number of duplicates registered, 10,169; total increase over last fiscal year, 900.

Amounts reported for payment of balances due foreign governments on settlement of accounts for the quarters named, together with the costs in currency.

To—	Quarter ended—	Amount.
United Kingdom of Great Britain and Ireland	Dec. 31, 1873	$24,832 43
	Mar. 31, 1874	14,390 38
	June 30, 1874	11,876 11
	Sept. 30, 1874	9,875 41
Total		60,974 33
Costing in currency		67,133 63
Empire of Germany	Mar. 31, 1874	19,485 12
	June 30, 1874	15,222 40
	Sept. 30, 1874	13,611 32
	Dec. 31, 1874	14,248 24
Total		62,567 08
Costing in currency		70,327 18
Belgium	June 30, 1874	2,159 37
	Sept. 30, 1874	2,134 36
	Dec. 31, 1874	2,114 66
Total		6,408 39
Costing in currency		7,298 45
Denmark	Mar. 31, 1874	744 18
	June 30, 1874	570 99
	Sept. 30, 1874	310 97
	Dec. 31, 1874	503 72
Total		2,129 86
Costing in currency		2,530 53
Sweden	Dec. 31, 1873	4,365 89
	Mar. 31, 1874	5,254 40
	June 30, 1874	3,850 45
	Sept. 30, 1874	4,317 76
	Dec. 31, 1874	3,291 67
Total		21,080 17
Costing in currency		26,257 74

Amounts reported for payment of balances due foreign governments, &c.—Continued.

To—	Quarter ended—	Amount.
Norway	Sept. 30, 1873	$851 35
	Dec. 31, 1873	1,481 67
	Mar. 31, 1874	1,931 68
	June 30, 1874	1,311 01
	Sept. 30, 1874	838 96
	Dec. 31, 1874	1,136 32
Total		7,550 99
Costing in currency		9,138 41
Total amount reported		160,710 82
Costing in currency		122,625 94

The following amounts have been paid in gold by the governments named:

By	Quarter ended—	Amount.
Switzerland	June 30, 1874	$2,059 52
	Sept. 30, 1874	3,334 00
Total		5,393 52
Netherlands	June 30, 1874	1,134 45
	Sept. 30, 1874	1,212 39
	Dec. 31, 1874	1,179 92
	Mar. 31, 1875	1,206 56
Total		4,733 32
Italy	Mar. 31, 1874	1,607 93
	June 30, 1874	1,333 48
	Sept. 30, 1874	925 42
Total		3,866 83
France, for extra-national postage	Sept. 30, 1874	2,845 48
	Dec. 31, 1874	4,598 08
Total		7,443 56
Total amount received in gold		21,437 23

Number of reports of ocean postage to the Postmaster-General and amounts reported.

In third quarter, 1874.		In fourth quarter, 1874.		In first quarter, 1875.		In second quarter, 1875.	
No. of reports.	Amount.	No. of reports.	Amount.	No. of reports.	Amount.	No. of reports.	Amount.
1	$12,094 63	1	$12,257 35	1	$11,703 52	1	$13,361 91
1	11,069 48	1	10,432 25	1	11,048 97	1	12,270 64
1	8,710 46	1	10,220 95	1	9,021 60	1	8,130 20
1	7,804 50	1	7,760 48	1	8,676 45	1	7,070 14
1	6,798 73	1	7,693 77	1	8,291 59	1	7,067 79
1	6,115 69	1	7,340 46	1	6,519 41	1	5,214 51
1	6,008 28	1	6,406 68	1	6,212 41	1	4,408 96
1	5,938 00	1	4,788 99	1	4,154 71	1	4,269 00
1	3,892 67	1	2,904 23	1	4,089 94	1	3,057 37
1	3,853 26	1	2,685 50	1	1,985 51	1	2,801 08
1	3,412 81	1	1,806 27	1	1,406 00	1	2,805 12
1	3,234 28	1	1,692 59	1	1,378 18	1	1,406 09
1	1,528 83	1	1,279 12	1	1,353 43	1	1,350 02
1	1,325 12	1	1,259 62	1	1,012 39	1	1,161 15
1	1,356 70	1	891 53	1	901 81	1	1,064 26

Number of reports of ocean postages to the Postmaster-General, &c.—Continued.

In third quarter, 1874.		In fourth quarter, 1874.		In first quarter, 1875.		In second quarter, 1875.	
No. of reports.	Amount.	No. of reports.	Amount.	No. of reports.	Amount.	No. of reports.	Amount.
1	$841 53	1	$845 67	1	$775 11	1	$819 42
1	805 60	1	610 80	1	668 03	1	794 55
1	645 91	1	604 10	1	629 02	1	754 93
1	637 49	1	543 13	1	582 96	1	716 52
1	479 97	1	521 27	1	578 97	1	519 54
1	423 27	1	465 02	1	346 08	1	406 85
1	418 04	1	453 96	1	323 46	1	310 52
1	367 50	1	428 35	1	179 49	1	207 62
1	319 90	1	354 20	1	192 78	1	173 51
1	286 93	1	320 11	1	163 94	1	88 95
1	247 17	1	223 87	1	112 78	1	84 74
1	240 24	1	215 27	1	107 80	1	82 26
1	187 57	1	220 86	1	99 40	1	52 36
1	169 82	1	229 17	1	82 39	1	49 07
1	107 10	1	221 06	1	80 92	1	26 87
1	79 40	1	194 25	1	31 50	1	17 95
1	71 40	1	108 09	1	17 99	1	14 39
1	61 74	1	102 93	1	16 07	1	14 23
1	55 09	1	79 24	1	14 70	1	9 52
1	42 11	1	74 30	1	13 13	1	6 29
1	34 86	1	73 96	1	12 93	1	3 78
1	34 37	1	62 77	1	3 78	1	1 75
1	31 22	1	61 07				
1	29 42	1	51 31				
1	26 74	1	31 08				
1	16 38	1	30 10				
1	9 68	1	10 57				
1	9 10	1	8 24				
1	7 25	1	8 10				
1	3 73	1	2 57				
1	1 44						
46	89, 894 90	45	86, 617 21	37	82, 764 24	37	80, 394 58

Total number of reports made	165
Increase over last fiscal year	15
Total amount reported	$339, 670 93
Increase over last fiscal year	7, 220 65

PAY DIVISION—R. F. CROWELL, CHIEF OF DIVISION.

To this division are assigned the adjustment and payment of all accounts for the transportation of the mails, whether carried by ocean steamers, railroads, steamboats, or any contractor, special mail-carrier, or mail-messenger; the accounts of superintendents and assistant superintendents of the railway-postal service, railway-postal clerks, route agents, mail-route messengers, and local agents, and all accounts arising under appropriations for mail-depredations and special agents, free-delivery system, postage-stamps, postal cards, envelopes, postmarking and canceling stamps, post-route maps, wrapping-paper, twine, mail-bags, mail locks and keys, engraving and printing drafts and warrants, advertising, fees of United States attorneys, marshals, and clerks in suits on postal matters, and miscellaneous accounts.

There are also assigned to this division the passing and registering of all drafts and warrants for the payment of accounts, and the custody of the archives of the Office.

Accounts of mail-contractors settled during the fiscal year ended June		
In the [illegible]	[illegible]	[illegible]
In the [illegible]	[illegible]	[illegible]
In the [illegible]	[illegible]	[illegible]
In the [illegible]	[illegible]	[illegible]
Total	[illegible]	[illegible]
Increase over last fiscal year	[illegible]	
Increase from last fiscal year		[illegible]
Accounts of contract mail-service settled during the fiscal year		
In the [illegible]	[illegible]	[illegible]
In the [illegible]	[illegible]	[illegible]
In the [illegible]	[illegible]	[illegible]
In the [illegible]	[illegible]	[illegible]
Total	[illegible]	[illegible]
Increase over last fiscal year	[illegible]	[illegible]
Accounts of special mail-carriers settled during the fiscal year:		
In the quarter ended September 30, 1874	1,244	10,124 53
In the quarter ended December 31, 1874	1,243	9,680 [illegible]
In the quarter ended March 31, 1875	1,409	11,647 [illegible]
In the quarter ended June 30, 1875	1,477	12,093 [illegible]
Total	5,373	43,549 [illegible]
Increase from last fiscal year	414	1,449 46
Accounts of mail-messengers settled during the fiscal year:		
In the quarter ended September 30, 1874	3,644	153,914 79
In the quarter ended December 31, 1874	3,691	157,582 94
In the quarter ended March 31, 1875	3,779	157,374 67
In the quarter ended June 30, 1875	3,809	160,122 30
Total	14,923	629,993 [illegible]
Increase over last fiscal year	585	43,728 [illegible]
Accounts of superintendents, assistant superintendents of railway-postal service, and special agents settled during the fiscal year:		
In the quarter ended September 30, 1874	189	49,064 75
In the quarter ended December 31, 1874	235	56,513 69
In the quarter ended March 31, 1875	195	47,496 83
In the quarter ended June 30, 1875	250	65,944 61
Total	869	218,968 [illegible]
Increase over last fiscal year	5	423 06
Accounts of railway postal clerks, route-agents, mail-route messengers, and local agents settled during the fiscal year:		
In the quarter ended September 30, 1874	2,356	559,570 32
In the quarter ended December 31, 1874	2,356	567,502 74
In the quarter ended March 31, 1875	2,404	573,098 69
In the quarter ended June 30, 1875	2,484	575,054 36
Total	9,600	2,275,238 11
Increase over last fiscal year	632	152,467 [illegible]
Accounts of letter carriers settled during the fiscal year:		
In the quarter ended September 30, 1874	2,178	455,627 71
In the quarter ended December 31, 1874	2,148	469,124 44
In the quarter ended March 31, 1875	2,256	472,554 [illegible]

	Number.	Amount.
In the quarter ended June 30, 1875	2,364	$479,111 51
Special agents paid out of this appropriation	2	5,622 48
Total	8,948	1,880,041 99
Increase over last fiscal year	453	77,546 93
Decrease from last fiscal year—special agents	.....	201 35
Miscellaneous payments for the fiscal year:		
In the quarter ended September 30, 1874	247	350,118 86
In the quarter ended December 31, 1874	203	311,880 03
In the quarter ended March 31, 1875	287	416,718 38
In the quarter ended June 30, 1875	246	245,455 75
Total	983	1,324,173 02
Increase over last fiscal year	145	118,256 64
Warrants issued by the Postmaster-General, and countersigned by the Auditor, passed and registered during fiscal year:		
In the quarter ended September 30, 1874	2,868	3,209,415 93
In the quarter ended December 31, 1874	3,233	2,692,891 30
In the quarter ended March 31, 1875	3,227	3,260,027 36
In the quarter ended June 30, 1875	3,050	2,752,026 01
Total	12,378	11,854,360 60
Increase over last fiscal year	1,727	359,584 27
Drafts issued by the Third Assistant Postmaster-General and countersigned by the Auditor, passed and registered during the fiscal year:		
In the quarter ended September 30, 1874	4,646	551,840 86
In the quarter ended December 31, 1874	4,441	556,420 43
In the quarter ended March 31, 1875	4,392	406,202 25
In the quarter ended June 30, 1875	4,777	527,477 28
Total	18,256	2,041,940 82
Increase over last fiscal year	372	.....
Decrease from last fiscal year	.....	303,898 50

Reports, accounts of postmasters, receipts and certificates of deposit filed in the archives during the fiscal year.

	Number of reports.	Postmasters accounts.	Receipts for drafts.	Certificates of deposit.
Quarter ended September 30, 1874	7,257	8,957	5,243	2,364
Quarter ended December 31, 1874	7,691	4,622	4,197	2,291
Quarter ended March 31, 1875	8,631	3,846	5,387	2,415
Quarter ended June 30, 1875	7,856	8,933	5,624	2,863
Total	31,435	26,358	20,451	9,933
Increase over last fiscal year	3,275	11,447	5,945	.....
Decrease from last fiscal year	.....	.....	.....	1,506

MONEY-ORDER DIVISION—JOHN LYNCH, CHIEF OF DIVISION.

Statement showing the business of the money-order division during the fiscal year ended June 30, 1875.

	Number.	Amount.	Increase over last year.	
			Number.	Amount.
Domestic money-orders issued	5,006,323	$77,431,251 58	585,690	$3,006,396 87
Swiss international money-orders issued	2,759	68,548 05	38	*3,739 23
British international money-orders issued	64,172	1,149,382 29	*13,179	*341,938 02
German international money-orders issued	35,319	746,644 54	2,777	45,009 81
Domestic money-orders paid, received, examined, assorted, checked and filed	4,952,747	76,865,353 75	536,633	3,129,918 74
Swiss international money-orders paid, received, examined, assorted, checked and filed	1,080	29,135 75	287	7,913 62
British international money-orders paid, received, examined, assorted, checked and filed	17,677	324,542 80	1,685	20,769 14
German international money-orders paid, received, examined, assorted, checked and filed	23,993	620,756 76	3,386	85,540 04
Certificates of deposit registered, compared, and entered	266,753	53,825,481 11	48,244	*6,583,249 30
Transfers registered, compared, and filed	5,941	1,333,391 30	95	142,480 60
Drafts registered and checked	13,317	6,791,753 60	1,434	760,390 60
Remittances registered and checked	959	223,823 40	959	223,823 10
Advices of money-orders sent for and returned	7,970	.....	7,970	.....
Money-orders returned for correction	19,587	.....	*10,559	.....

* Decrease.

	Number.				Total.	Increase over last fiscal year.
	Quarter ending—					
	September 30, 1874.	December 31, 1874.	March 31, 1875.	June 30, 1875.		
Domestic money-order statements received, examined, and registered	40,776	40,776	40,776	40,776	163,104	15,8[illegible]
Swiss international money-order statements received, examined, and registered	2,088	2,088	2,088	2,088	8,352	564
British international money-order statements received, examined, and registered	11,940	11,940	11,940	11,940	47,760	1,[illegible]87
German international money-order statements received, examined, and registered	7,260	7,260	7,260	7,260	29,040	2,351
Letters written during the fiscal year	1,125	1,175	1,175	1,175	4,650	1,339

In conclusion, I am gratified to be able to report the entire work of the Bureau in a highly satisfactory condition.

I desire to express my grateful appreciation of the valuable and efficient service of Mr. F. B. Lilley, the deputy auditor, of the chiefs of divisions, and of the clerks and employés generally, through whose faithful and intelligent co-operation the work of the Office has been brought to a more advanced and satisfactory state than at any time since its organization.

I have the honor to be, very respectfully, &c.,

J. M. McGREW,
Auditor.

Hon. B. H. BRISTOW,
Secretary of the Treasury.

REPORT OF THE TREASURER OF THE UNITED STATES.

TREASURY OF THE UNITED STATES,
Washington, November 1, 1875.

SIR: As required by law, I herewith submit the following statement of the condition of the Treasury of the United States at the close of the fiscal year ended June 30, 1875, accompanied by tables to fully exhibit the operation thereof during the year. By examination of the comparative statement of receipts and expenditures given in the appendix to this report, it will be seen that while there has been an increase of $7,597,708.68 in internal-revenue receipts for the fiscal year 1875 over those of 1874, there has been a decrease in receipts from customs of $5,936,111.34; from lands, $438,788.76, and from miscellaneous sources, $2,701,513.54; making a total net decrease of revenue for the fiscal year 1875 from that of 1874 amounting to $1,478,704.96; but, more than an offset to that decrease in revenue, the total net decrease in expenditures for the same period is $11,115,407.37, composed of the following items, viz: Decreased expenditures on account of interest on public debt, $4,026,270.64; on account of War Department, $1,193,281.24; on account of Navy Department, $9,434,961.15; total decreased expenditures, $14,654,513.03, less increased expenditures on account of Interior Department, $2,109,996.29, and on account of civil and miscellaneous, $1,429,109.37; being a net difference of $9,636,702.41 in favor of the fiscal year 1875 over that of 1874 in the matter of receipts and expenditures together.

TREASURER'S QUARTERLY ACCOUNTS.

The account of receipts and expenditures rendered by the Treasurer of the United States to the Accounting-officers of the Treasury, and copies of which are to be laid before the Senate and House of Representatives, is to the end of the fiscal year 1875; making *two years' statements instead of one*, as ordinarily.

UNAVAILABLE MONEYS.

The amount of General Treasury moneys carried in the balances on the books of this Office, and which was unavailable on the 30th June, 1875, was $29,860,042.34, as shown by "Statement IV" in the appendix to this report; and the amount of Post-Office Department moneys carried in a similar way, and which was unavailable on the same date, was $40,078.06, as shown by "Statement III" in the appendix.

On page 178, Volume 5, United States Statutes at Large, chapter xxxv, it appears that an act was approved March 3, 1837, of which the following is the text of section 1:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the proper Accounting-officers of the Treasury be, and they are hereby, authorized to credit the account of the Treasurer of the United States with the amount of the unavailable funds, whether charged to John Campbell or his predecessors, and to transfer the amount to the debit of the banks and individuals, respectively, that may be indebted for the same.

In order to avoid the daily, weekly, quarterly, and yearly repetition of the statement of the amount of these unavailable moneys, and to clear the late Treasurer's accounts of these fictitious balances, it is respectfully recommended that an act be passed similar to that above quoted; but to make such act sufficiently complete, so as to cover such

unavailable items in the future, it is submitted that in all cases of deficit, default, or suspension of payment, from any cause whatsoever, whereby the moneys of the United States become unavailable, the Accounting-officers of the Treasury should be empowered, formally, to place upon record the facts in each and every case, charging the amount to the person who is in default, or whose assets are deficient or in suspension, and crediting the Treasurer of the United States in his General account.

DISBURSING-OFFICERS' BALANCES AND REPORTS.

By Statements VIII and IX, in the appendix to this report, it will be seen that over 60,000 "Lists of balances" and "Statements of public funds" have been received and examined by this Office during the fiscal year 1875; also, that of the 1,844 balances of accounts reported by Depositories, 389 were useless for the purpose of comparison, no reports having been received from disbursing-officers to that number, and that many other officers who have the disbursement of public funds render no reports whatever.

To fully serve the purpose for which the work of examination and comparison done by this Office was instituted, it would seem to be only proper for all disbursing-officers of the Government to render reports regularly and promptly; and, to make such reports effective, the statement rendered should give, 1st, the date and amount of each deposit made by the officer during the week; 2d, the date, amount, and payee of each check drawn during the week; and, 3d, the balance to his credit as shown by check-book, stub, or account. On the other hand, each depository should also report weekly, 1st, the amount deposited by or placed to the credit of every disbursing-officer; 2d, the amount of each disbursing-officer's checks paid; and, 3d, the balance to the credit of each disbursing-officer at the close of business on the last day of the week. This would not entail much additional labor upon any one branch of the service, but would enable every administrative Department and Bureau to know *the amount* of *outstanding checks* of each one of its disbursing-officers weekly, which is at present a quite uncertain element of accountability. If, in addition to this being made matter of legislative requirement, all accounts of official funds whatsoever were required to be reported weekly to some Accounting-officer, such system would not only serve the purpose for which it is intended, but tend to promote regularity and correctness in the keeping of all accounts of the Government. The importance of this part of the fiscal business of the United States can be estimated from the fact that the amount expended by the several Departments through disbursing-officers is over two hundred and fifty million dollars annually. It is, therefore, respectfully submitted and urged upon the attention of Congress that some legislative action be had, so that a full and complete systemization be made of this not unimportant branch of the service.

PAYMENT OF SPEAKER'S CERTIFICATES.

Payments of compensation and mileage to members of the House of Representatives are now made by the Treasurer of the United States upon the certificate of the Speaker (or the Clerk of the House when there is no Speaker) that the member named is entitled to payment. The certificates, receipted by the member, are presented at the Treasurer's Office by the Sergeant-at-Arms, who receives payment thereof as the agent of the members, keeping account with and disbursing to them as they may require. It thus happens frequently that the Sergeant-at-

Arms has in his possession large sums belonging to members, and to their credit on his books.

The amount of the Treasury warrant issued each month to re-imburse the Treasurer for the payments of the month is charged to him upon the books of the Register, and he obtains credit to offset such charge upon filing with the Auditing-officer of the Department the Speaker's certificates, if they are found correct. But it has happened at various times that the Auditing-officer, having found errors in the computation of amounts due to members as expressed in the certificates, has not allowed credit for the full amount paid by the Treasurer, who has been put to considerable trouble to obtain repayment of the money so overpaid, and has not always succeeded in this. For instance, there are at this time held suspended against the late Treasurer, and to his debit on the books of the Register, a small amount, arising from overpayment to two members of the Thirty-ninth Congress, the term of which expired in 1867. This suspension has continued to this date, notwithstanding the amounts paid were the amounts certified by the Speaker to be due, and the act of Congress expressly declares that these certificates shall be conclusive upon all the Departments and officers of the Government, the First Comptroller holding that this requirement applies only to certificates drawn in conformity to law.

The law requiring that these certificates be paid out of the public Treasury, and passed as public accounts, does not require that they shall be paid before being passed by the proper Auditing-officer; and if the Treasurer is to be held responsible for errors that he has no means of detecting, it may be necessary for his own pecuniary safety that he submit the certificates for the action of the Auditing-officers prior to their payment. But as this would cause some delay, and perhaps inconvenience to members, that might be avoided, it is respectfully recommended that one of the officers of the House of Representatives be designated as a disbursing-officer for the purpose of these payments, giving such bond as may be required by law. The Secretary of the Senate is, by the present law, charged with the disbursement of the compensation and mileage of Senators, and it is not seen that any objection exists to the same method of payment of members of the House of Representatives.

THE NATIONAL BANK REDEMPTION AGENCY.

The National Bank Redemption Agency, established by act of Congress approved June 20, 1874, has been in operation since a few days thereafter, and during the fiscal year there have been redeemed, assorted, and accounted for 17,842,310 notes, of the aggregate value of $130,322,945.

The expenses of the Agency have been as follows:

Express charges		$88,098 31
All other expenses:		
Salaries	$158,227 39	
Printing and stationery	12,290 72	
Postage	3,298 80	
Office-furniture	12,018 68	
Contingent expenses	768 47	
Profit and loss	15,363 00	
		202,867 06
Total		290,965 37

For these expenses an assessment has been made upon the banks, for express charges in proportion to the amount in value of the notes redeemed, and for all other expenses and charges in proportion to the number of notes redeemed; this being considered the equitable method of making the assessment. The items going to make up these expenses and charges are set forth in detail upon the books of the Agency, and a concise statement thereof accompanied the assessment for the information of the banks. The full credit of the organization of the Agency and the success which has attended it in the past belong to my predecessor, and he and the law are responsible for the expenses incurred. The assessment was made for the aggregate of the charges and expenses as found upon the books of the Agency on the 30th of June, 1875, the day of his retirement from office. Should the banks seriously object to any of the charges or expenses included in the assessment, it is for them to take such steps to recover the same as may seem best. Yet under the circumstances and difficulties attending the organization of the Agency, and which they have appreciated, few have made any complaint. If the Agency is to be continued, its practical operation in the past has suggested some changes in the law for its successful conduct in the future, alike in the interest of the public and the banks. It has been hitherto esteemed that a bank has fully discharged its promise and obligation when it has redeemed the same in lawful money at its own counter or other designated place of redemption. Under this law, the bank is also required to pay the cost of the transportation of its notes to Washington, together with all other expenses, direct or incidental, attending the redemption of the same, and practically of the return of the redeeming medium to the residence of the note-holder.

For the notes of 171 banks which have failed or gone into voluntary liquidation prior to the 30th of June last, and also of 171 other banks that are retiring all or part of their circulation, there have been deposited in the Treasury legal-tender notes to the exact amount of circulation outstanding or to be retired. Such circulation is, by law, redeemable by the Treasury; yet, as a matter of fact, these notes, or nearly all of them, are presented to the Treasury through this Agency; and as these banks have no 5 per cent. fund to which to charge their *pro rata* share of the expense, the same can only be apportioned and assessed upon the banks still in full operation. There was on deposit in the Treasury on the 30th of June, 1875, $18,203,667.05 in legal-tender notes for the purpose of taking up the circulation of such banks, the Government getting the benefit of this deposit without interest or expense. And yet, under the law, the expense of retiring such circulation is taxed to the remaining banks, who have had no interest or benefit therefrom. This is manifestly unjust. As the profits of this banking system are diminishing because of increasing taxation and unfriendly legislation, the number of banks withdrawing their circulation is rapidly increasing, and to the same degree the proportion of this unjust levy upon the remaining banks will increase.

Since the passage of the "national-bank act" there has been paid, without cost or expense to the Government, by the national banks, of—

Tax on circulation	$29,220,841 45
Tax on deposits	28,327,246 19
Tax on capital	3,820,381 82
Making	61,368,469 46

The original intent of Congress in imposing this tax upon the "circulation" was evidently to cover the expense of the same; and if, from the next return of semi-annual duty upon their circulation, the banks

be allowed to deduct the amount of the late assessment, and thereafter, as assessments be made, like deductions be allowed, the matter will, I believe, be satisfactory to the banks and just to the Government.

It is the public, not the banks, that is benefited by the renovation of the currency or its redemption.

The rate per cent. on the amount redeemed for each bank will be materially less in the future, because much of the permanent furniture and appliances necessary have been provided, and because, as the "charter-numbers" will have been imprinted on the notes, the labor of assorting will be very greatly diminished, and consequently a relative reduction of the force may be made.

Should Congress refuse to allow the repayment of assessments as proposed herein, the fact that so large a number of national banks have gone into liquidation, or are retiring their circulation, would seem to make it essential that the charges for transportation of currency for redemption be prepaid by the party sending; otherwise the remaining banks, as stated, would be required to pay the expenses of redemption of notes other than their own.

The labor, care, and responsibility of the management of this Agency are very great, involving the daily receipt, assorting, and payment, by currency or checks, of several hundred thousand dollars, and the keeping of over two thousand accounts, and the oversight of more than one hundred and fifty clerks and counters.

And if this Agency be continued, it is greatly to be desired that the same be made a separate bureau of your Department, under the charge of a superintendent, who should give a bond for the faithful discharge of his duties; that the 5 per cent. fund required of national banks be kept in the Treasury as now provided, but subject to the check of such superintendent, and that such checks may be payable in currency or by transfer-drafts upon any assistant treasurer of the United States, as may be desired by the party entitled to payment, or as the convenience of the Treasury may demand.

THE THEFT OF JUNE 2, 1875.

On the above-named day, at about half past 2 o'clock p. m., while the packages of new money remitted to banks and others in return for mutilated notes redeemed were being checked off for delivery to the Adams Express Company, it was discovered that there was missing a package of $47,097.65, intended for the National Park Bank of New York City. Immediate and thorough search for the package being made without success, notice was at once given to the Acting Secretary of the Treasury, who placed the matter in the hands of the Secret Service Division of the Treasury Department for investigation, which was immediately commenced and prosecuted, it is believed, with commendable activity.

The package in question, it appeared, had been put up among the earliest of those intended for remittance on that day, and, after having been sealed and addressed, was placed with other packages prepared for delivery, and was not missed until delivery was being made to the express company, as above stated, in the room immediately below the cash-room of this Office. This package consisted mainly of $500 legal-tender notes, viz: 94 notes of $500 each, and notes and currency of smaller denominations, to make up the amount of $47,097.65. The $500 notes, although clean, and apparently such as had not been used, were, in fact, notes that had been out and returned to the Office, but had not been destroyed for the reason that they were in good condition, and were used because

Amounts reported for payment of balances due foreign governments, &c.—Continued.

To—	Quarter ended—	Amount.
Norway	Sept. 30, 1873	$851 35
	Dec. 31, 1873	1,481 67
	Mar. 31, 1874	1,931 66
	June 30, 1874	1,311 01
	Sept. 30, 1874	838 96
	Dec. 31, 1874	1,136 32
Total		7,550 99
Costing in currency		9,138 41
Total amount reported		160,710 82
Costing in currency		182,685 94

The following amounts have been paid in gold by the governments named:

By	Quarter ended—	Amount.
Switzerland	June 30, 1874	$2,059 52
	Sept. 30, 1874	3,334 00
Total		5,393 52
Netherlands	June 30, 1874	1,134 45
	Sept. 30, 1874	1,212 39
	Dec. 31, 1874	1,179 93
	Mar. 31, 1875	1,206 56
Total		4,733 33
Italy	Mar. 31, 1874	1,607 93
	June 30, 1874	1,333 48
	Sept. 30, 1874	925 42
Total		3,866 83
France, for extra-national postage	Sept. 30, 1874	2,845 48
	Dec. 31, 1874	4,598 08
Total		7,443 56
Total amount received in gold		21,437 23

Number of reports of ocean postage to the Postmaster-General and amounts reported.

In third quarter, 1874.		In fourth quarter, 1874.		In first quarter, 1875.		In second quarter, 1875.	
No. of reports.	Amount.	No. of reports.	Amount.	No. of reports.	Amount.	No. of reports.	Amount.
1	$12,094 63	1	$12,257 35	1	$11,703 52	1	$13,361 91
1	11,069 48	1	10,432 25	1	11,048 97	1	12,270 64
1	8,710 46	1	10,220 95	1	9,021 69	1	8,130 20
1	7,804 50	1	7,760 48	1	8,676 45	1	7,070 14
1	6,798 73	1	7,693 77	1	8,291 59	1	7,067 79
1	6,115 69	1	7,340 46	1	6,519 41	1	5,214 51
1	6,008 28	1	6,406 68	1	6,212 41	1	4,408 96
1	5,938 00	1	4,788 99	1	4,154 71	1	4,269 00
1	3,892 67	1	2,904 23	1	4,069 94	1	3,057 37
1	3,853 26	1	2,685 50	1	1,985 51	1	2,801 05
1	3,412 81	1	1,806 27	1	1,406 00	1	2,605 12
1	3,234 98	1	1,692 59	1	1,372 18	1	1,406 09
1	1,528 83	1	1,279 12	1	1,353 43	1	1,350 02
1	1,385 12	1	1,250 02	1	1,012 39	1	1,161 15
1	1,356 70	1	891 53	1	901 81	1	1,064 96

Number of reports of ocean postages to the Postmaster-General, &c.—Continued.

In third quarter, 1874.		In fourth quarter, 1874.		In first quarter, 1875.		In second quarter, 1875.	
No. of reports.	Amount.	No. of reports.	Amount.	No. of reports.	Amount.	No. of reports.	Amount.
1	$841 53	1	$845 67	1	$775 11	1	$819 42
1	805 60	1	610 80	1	668 03	1	794 55
1	645 91	1	604 10	1	629 02	1	754 93
1	637 49	1	543 13	1	582 96	1	716 52
1	479 97	1	521 27	1	578 97	1	519 54
1	423 27	1	465 02	1	346 08	1	406 85
1	418 04	1	453 96	1	323 46	1	310 52
1	367 50	1	428 35	1	179 49	1	207 62
1	319 90	1	334 20	1	192 78	1	173 51
1	286 93	1	320 11	1	163 94	1	88 95
1	247 17	1	235 87	1	112 78	1	84 74
1	240 24	1	215 27	1	107 80	1	82 26
1	187 57	1	230 86	1	99 40	1	52 36
1	169 82	1	229 17	1	82 39	1	49 07
1	107 10	1	221 06	1	80 92	1	26 87
1	79 40	1	194 25	1	31 50	1	17 95
1	71 40	1	108 09	1	17 99	1	14 39
1	61 74	1	102 93	1	16 07	1	14 23
1	55 09	1	79 24	1	14 70	1	9 52
1	42 11	1	74 30	1	13 13	1	6 29
1	34 86	1	73 96	1	12 93	1	3 78
1	34 37	1	62 77	1	3 78	1	1 75
1	31 22	1	61 07				
1	29 42	1	51 31				
1	26 74	1	31 08				
1	16 38	1	30 10				
1	9 68	1	10 57				
1	9 10	1	8 24				
1	7 25	1	8 10				
1	3 73	1	2 57				
1	1 44						
46	89, 894 90	45	86, 617 21	37	82, 764 24	37	80, 394 58

Total number of reports made	165
Increase over last fiscal year	15
Total amount reported	$339, 670 93
Increase over last fiscal year	7, 220 65

PAY DIVISION—R. F. CROWELL, CHIEF OF DIVISION.

To this division are assigned the adjustment and payment of all accounts for the transportation of the mails, whether carried by ocean steamers, railroads, steamboats, or any contractor, special mail-carrier, or mail-messenger; the accounts of superintendents and assistant superintendents of the railway-postal service, railway-postal clerks, route agents, mail-route messengers, and local agents, and all accounts arising under appropriations for mail-depredations and special agents, free-delivery system, postage-stamps, postal cards, envelopes, postmarking and canceling stamps, post-route maps, wrapping-paper, twine, mail-bags, mail locks and keys, engraving and printing drafts and warrants, advertising, fees of United States attorneys, marshals, and clerks in suits on postal matters, and miscellaneous accounts.

There are also assigned to this division the passing and registering of all drafts and warrants for the payment of accounts, and the custody of the archives of the Office.

	Number.	Amount.
Accounts of mail-contractors settled during the fiscal year ended June 30, 1875:		
In the quarter ended September 30, 1874	8,084	$3,750,828 05
In the quarter ended December 31, 1874	8,034	3,601,021 51
In the quarter ended March 31, 1875	8,140	3,208,210 22
In the quarter ended June 30, 1875	8,155	3,686,720 79
Total	32,413	14,246,780 57
Increase over last fiscal year	1,300	
Decrease from last fiscal year		900,923 18
Collection orders sent to contractors during the fiscal year:		
In the quarter ended September 30, 1874	29,017	936,569 75
In the quarter ended December 31, 1874	29,148	1,004,243 38
In the quarter ended March 31, 1875	29,183	1,515,768 74
In the quarter ended June 30, 1875	29,206	940,562 97
Total	116,554	4,397,144 84
Increase over last fiscal year	13,793	756,476 88
Accounts of ocean mail service settled during the fiscal year:		
In the quarter ended September 30, 1874	44	239,302 87
In the quarter ended December 31, 1874	52	275,655 95
In the quarter ended March 31, 1875	48	250,819 86
In the quarter ended June 30, 1875	34	243,832 85
Total	178	1,009,611 53
Increase over last fiscal year	8	4,559 27
Accounts of special mail-carriers settled during the fiscal year:		
In the quarter ended September 30, 1874	1,244	10,124 53
In the quarter ended December 31, 1874	1,243	9,693 93
In the quarter ended March 31, 1875	1,409	11,647 69
In the quarter ended June 30, 1875	1,477	12,083 68
Total	5,373	43,549 83
Decrease from last fiscal year	414	1,449 46
Accounts of mail-messengers settled during the fiscal year:		
In the quarter ended September 30, 1874	3,644	153,914 79
In the quarter ended December 31, 1874	3,691	157,522 04
In the quarter ended March 31, 1875	3,779	157,374 67
In the quarter ended June 30, 1875	3,809	160,122 38
Total	14,923	628,933 88
Increase over last fiscal year	585	43,728 86
Accounts of superintendents, assistant superintendents of railway-postal service, and special agents settled during the fiscal year:		
In the quarter ended September 30, 1874	189	49,084 75
In the quarter ended December 31, 1874	235	56,512 69
In the quarter ended March 31, 1875	195	47,496 03
In the quarter ended June 30, 1875	250	65,944 61
Total	869	218,968 08
Increase over last fiscal year	5	483 06
Accounts of railway-postal clerks, route-agents, mail-route messengers, and local agents settled during the fiscal year:		
In the quarter ended September 30, 1874	2,356	559,576 32
In the quarter ended December 31, 1874	2,356	567,502 74
In the quarter ended March 31, 1875	2,404	573,098 69
In the quarter ended June 30, 1875	2,484	575,054 36
Total	9,600	2,275,232 11
Increase over last fiscal year	632	152,467 28
Accounts of letter-carriers settled during the fiscal year:		
In the quarter ended September 30, 1874	2,178	473,627 51
In the quarter ended December 31, 1874	2,148	469,124 44
In the quarter ended March 31, 1875	2,256	472,552 05

	Number.	Amount.
In the quarter ended June 30, 1875	2,364	$479,111 51
Special agents paid out of this appropriation	2	5,622 48
Total	8,948	1,880,041 99
Increase over last fiscal year	453	77,546 93
Decrease from last fiscal year—special agents		201 35
Miscellaneous payments for the fiscal year:		
In the quarter ended September 30, 1874	247	350,118 86
In the quarter ended December 31, 1874	203	311,880 03
In the quarter ended March 31, 1875	287	416,718 38
In the quarter ended June 30, 1875	246	245,455 75
Total	983	1,324,173 02
Increase over last fiscal year	145	118,256 04
Warrants issued by the Postmaster-General, and countersigned by the Auditor, passed and registered during fiscal year:		
In the quarter ended September 30, 1874	2,868	3,209,415 93
In the quarter ended December 31, 1874	3,233	2,632,891 30
In the quarter ended March 31, 1875	3,227	3,260,027 36
In the quarter ended June 30, 1875	3,050	2,752,020 01
Total	12,378	11,854,360 60
Increase over last fiscal year	1,727	359,584 27
Drafts issued by the Third Assistant Postmaster-General and countersigned by the Auditor, passed and registered during the fiscal year:		
In the quarter ended September 30, 1874	4,646	551,840 86
In the quarter ended December 31, 1874	4,441	556,420 43
In the quarter ended March 31, 1875	4,392	406,202 25
In the quarter ended June 30, 1875	4,777	527,477 28
Total	18,256	2,041,940 82
Increase over last fiscal year	372	
Decrease from last fiscal year		303,898 50

Reports, accounts of postmasters, receipts and certificates of deposit filed in the archives during the fiscal year.

	Number of reports.	Postmasters accounts.	Receipts for drafts.	Certificates of deposit.
Quarter ended September 30, 1874	7,257	8,957	5,243	2,364
Quarter ended December 31, 1874	7,691	4,622	4,197	2,291
Quarter ended March 31, 1875	8,631	3,846	5,387	2,415
Quarter ended June 30, 1875	7,856	8,933	5,624	2,863
Total	31,435	26,358	20,451	9,933
Increase over last fiscal year	3,975	11,447	5,945	
Decrease from last fiscal year				1,506

Statement showing the number of cases and number and amount of registered and coupon bonds issued during the fiscal year ending June 30, 1875.

Loans.	Issued.									
	Direct issues.			Exchanges.			Transfers.			Total issue.
	No. of cases.	Bonds issued.	Amount.	No. of cases.	Bonds issued.	Amount.	No. of cases.	Bonds issued.	Amount.	Amount.
1858							1	1	$5,000	$5,000
1861, February 8				4	5	$13,000	234	563	1,535,000	1,553,000
Oregon war							9	71	33,100	33,100
1861, July 17				53	113	26,550	1,010	4,423	15,245,700	15,322,250
1862				109	435	2,122,300	132	494	1,906,800	4,029,100
1863				15	31	46,550	458	1,563	5,997,550	6,044,100
1864, 5-20s							10	10	6,700	6,700
1864, 10-40s				95	234	387,350	876	4,078	21,442,700	21,830,050
1864, June 30				41	101	328,650	265	957	3,857,550	4,186,200
1865				30	74	69,500	384	1,749	4,905,900	4,968,400
Consols of 1865				260	708	1,943,600	753	2,775	7,152,200	8,395,800
Consols of 1867				229	685	905,950	1,139	4,866	13,398,550	14,204,500
Consols of 1868				84	172	274,500	214	757	2,136,500	2,411,000
Pacific railroad loans							362	884	8,290,000	8,290,000
Five per cent. funded, 1881	254	81,916	$86,195,700	297	973	5,331,900	1,067	4,343	25,541,150	117,068,750
3-65s funded, District of Columbia	106	24,800	8,850,000	47	399	1,610,000	9	99	412,000	10,872,000
Total	360	106,716	95,045,700	1,264	3,921	12,307,850	6,925	27,690	111,866,400	219,219,950

Statement showing the number of cases and number and amount of registered and coupon bonds canceled during the fiscal year ending June 30, 1875.

Loans.	Canceled.							
	Redemptions.			Exchanges.		Transfers.		Total canceled.
	No. of cases.	Bonds canceled.	Amount.	No. of bonds.	Amount.	No. of bonds.	Amount.	Amount.
1858	37	161	$161,000			1	$5,000	$166,000
1861, February 8				18	$18,000	630	1,535,000	1,553,000
Oregon war						82	33,100	33,100
1861, July 17				279	76,550	3,846	15,245,700	15,322,250
1863	8,568	90,151	67,280,700	5,990	2,122,300	668	1,906,800	71,309,800
1863				93	46,550	1,482	5,997,550	6,044,100
1864, 5-20s						10	6,700	6,700
1864, 10-40s	1	2	1,000	1,437	387,350	4,225	21,442,780	21,831,030
1864, June 30				792	328,650	1,176	3,857,550	4,186,200
1865				359	62,500	1,631	4,905,900	4,968,400
Consols of 1865				5,605	1,243,600	3,568	7,152,200	8,395,800
Consols of 1867	1	4	1,650	4,573	805,950	4,673	13,398,550	14,206,150
Consols of 1868				1,739	274,500	674	2,136,500	2,411,000
Pacific railroad loans						2,338	8,290,000	8,290,000
Five per cent. funded, 1881	1	25	250,000	6,273	5,331,900	4,314	25,541,150	31,123,050
3-65s funded, District of Columbia				4,210	1,610,000	84	412,000	2,022,000
Total	8,628	90,343	67,694,350	31,568	12,307,850	29,422	111,866,400	191,868,600

NOTE AND COUPON DIVISION—LEWIS D. MOORE, CHIEF OF DIVISION.

At the close of the fiscal year the clerical force of this division consisted of forty-nine clerks, fourteen males and thirty-five females, and one messenger.

The whole number employed during the year was fifty-five clerks, eighteen males and thirty-seven females.

The average number per month was fifty-one clerks, sixteen males and thirty-five females.

The following consolidated statement exhibits the character and amount of work performed by this division during the fiscal year ending June 30, 1875.

Statement of Treasury notes, bonds, and coupons.

Notes, bonds, &c.	Authorized act.	Number of pieces.	Total amount.	Coupons attached.
Five-twenty bonds registered, examined, scheduled, and delivered to committee.				
Redeemed and exchanged	September 9, 1858	13, 826	$13, 826, 000	1, 719
Redeemed and exchanged	February 25, 1862	176, 978	83, 203, 650	3, 302, 037
Redeemed and exchanged	July 14, 1870, and January 20 1871	1	1, 000	38
Total		190, 805	97, 029, 650	3, 303, 794

Statement of Treasury notes, bonds, and coupons.

Notes, bonds, &c.	Authorizing act.	Number of pieces.	Total amount.
Treasury notes and certificates counted, assorted, arranged, registered, and examined.			
One and two years' 5 per cent	March 3, 1863	586	$17, 830
Three years' 6 per cent	March 3, 1863, and June 30, 1864	2, 314	57, 640
Three years' 7 3-10 per cent	June 30, 1864, and March 3, 1865	296	52, 450
Gold certificates	March 3, 1863	34, 812	71, 784, 000
Coin checks, (registered interest)	July 14, 1870, and Jan. 20, 1871	10, 681	9, 296, 586
Currency certificates of deposit	June 8, 1872	14, 683	77, 665, 000
Certificates of indebtedness	March 1, 1862	167, 845	398, 080, 000
Total		231, 217	556, 953, 506

Of coupons detached from notes and bonds there were counted, assorted, and arranged numerically 3,754,480, registered 3,661,950, examined and compared 3,430,409.

NOTE AND FRACTIONAL-CURRENCY DIVISION—CHARLES NEALE, CHIEF OF DIVISION.

Statement showing the number of notes and amount of fractional currency, Treasury notes, and national-bank notes (of such banks as are broken or have gone into voluntary liquidation) examined, counted, canceled, and destroyed by maceration during the fiscal year ending June 30, 1875;

	No. of notes.	Amount.
United States notes, new issue	2, 557, 381	$21, 245, 070
United States notes, series 1869	21, 114, 111	85, 624, 180
United States notes, series 1874	1, 646, 630	2, 670, 350
United States notes, demand notes	692	6, 260
National-bank notes	410, 687	2, 470, 199
Fractional currency, first issue	112, 000	13, 450
Fractional currency, second issue	112, 000	14, 865
Fractional currency, third issue	336, 000	68, 300
Fractional currency, fourth issue	50, 000, 000	9, 004, 800
Fractional currency, fourth issue, second series	5, 200, 000	2, 492, 000
Fractional currency, fourth issue, third series	23, 200, 000	11, 600, 000
Fractional currency, fifth issue	112, 400, 000	17, 064, 200
Total	217, 089, 501	152, 279, 674
During the year 1874	194, 226, 152	138, 078, 427
Increase	22, 863, 349	14, 201, 247

TONNAGE DIVISION—NEWEL B. WALKER, CHIEF OF DIVISION.

The total tonnage of the country exhibits an increase of 53,080 tons, the registered tonnage having increased 124,905 tons, the licensed tonnage (under 20 tons) 1,932 tons, while the enrolled tonnage has decreased 73,757 tons.

The actual increase is believed to be about 141,878 tons, this amount being the excess of the gains over the losses during the year.

The aggregate has been reduced by corrections of the balances reported outstanding, and by dropping canal-boat tonnage exempt under the act of Congress approved April 18, 1874; from the latter cause, about 48,000 tons, and from the former about 40,000 tons.

Below are given the totals of the last two years:

	1874.		1875.	
	Vessels.	Tons.	Vessels.	Tons.
Registered	2, 728	1, 428, 923	2, 961	1, 553, 828
Enrolled and licensed	29, 758	3, 371, 729	29, 304	3, 299, 904
Total	32, 486	4, 800, 652	32, 285	4, 853, 732

The comparison of the different classes of vessels is as follows:

	1874.		1875.	
	Vessels.	Tons.	Vessels.	Tons.
Sailing-vessels	18, 147	2, 473, 716	18, 354	2, 584, 910
Steam-vessels	4, 186	1, 185, 610	4, 235	1, 168, 668
Canal-boats	8, 245	751, 612	7, 803	709, 996
Barges	1, 908	389, 714	1, 898	390, 158
Total	32, 486	4, 800, 652	32, 285	4, 853, 732

It will be seen from the foregoing that the sailing tonnage has increased 111,194 tons, and the barge tonnage 444 tons, while the steam tonnage has decreased 16,942 tons, and the canal-boat tonnage 41,616 tons.

The proportion of the sailing tonnage registered is 52.6 per centum; of the steam tonnage, 16.4 per centum.

SHIP-BUILDING.

The following table exhibits the class, number, and tonnage of the vessels built during the last two fiscal year:

	1874.		1875.	
	Vessels.	Tons.	Vessels.	Tons.
Sailing-vessels	961	216,317	799	206,884
Steam-vessels	404	101,930	323	62,460
Canal-boats	473	48,403	62	6,515
Barges	309	66,075	118	21,780
Total	2,147	432,725	1,301	297,639

From the foregoing it appears that the amount built during the past year was less by 135,086 tons than that of the preceding year.

The tonnage built during the last two years in the several grand divisions of the country is shown below:

	1874.		1875.	
	Vessels.	Tons.	Vessels.	Tons.
Atlantic and Gulf coasts	1,341	266,233	893	231,045
Pacific coast	63	10,860	70	13,429
Northern lakes	417	91,986	177	29,871
Western rivers	326	63,646	161	23,294
Total	2,147	432,725	1,301	297,639

The above table shows a decrease in the amount built in each division except the Pacific coast.

The following table exhibits the iron tonnage built in the country since 1868:

	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.
Sailing-vessels	.....	1,039	679	2,067	.....	.....	.....	.....
Steam-vessels	2,801	3,545	7,602	13,412	12,766	26,548	33,097	21,632
Total	2,801	4,584	8,281	15,479	12,766	26,548	33,097	21,632

Tables showing the amount of iron tonnage outstanding will be found in the appendix to the report on commerce and navigation.

THE FISHERIES.

The tonnage engaged in the fisheries during the last two years is as follows:

	1874.		1875.	
	Vessels.	Tons.	Vessels.	Tons.
Cod and mackerel fisheries	2,099	78,290	2,188	80,306
Whale fisheries	162	39,107	165	38,229

Below is shown the amount of tonnage employed in the cod and mackerel fisheries, with the per centum of each State.

	Tonnage.	Per cent.
Massachusetts	51,384	64
Maine	20,366	25.3
Connecticut	3,757	4.6
Rhode Island	1,536	1.9
New York	1,159	1.4
California	1,009	1.2
New Hampshire	992	1.2
Pennsylvania	24	.....
Total	80,227	.....

This shows a slight increase during the year.

The tonnage employed in the whale-fisheries is given below:

Customs-districts.	1874.		1875.	
	Vessels.	Tons.	Vessels.	Tons.
New Bedford, Mass	126	34,557	127	33,474
New London, Conn	17	2,735	Sail, 13 Steam, 1	1,943 106
Barnstable, Mass	15	1,384	19	1,804
Edgartown, Mass	1	181	3	770
San Francisco, Cal	2	132	2	132
Sag Harbor, N. Y	1	116	.....	.....
Total	187	44,755	165	38,229

Of the above over 87.5 per cent. belongs at New Bedford.

Fuller tables, showing the various classes of tonnage, will be found in the appendix to this report.

DIVISION OF RECEIPTS AND EXPENDITURES—J. H. BEATTY, CHIEF OF DIVISION.

The following statement exhibits the work of this division for the year ending June 30, 1875:

The number of warrants registered during the year for civil, diplomatic, miscellaneous, internal revenue, and public debt expenditures and repayments was	22,259
In the preceding year	24,548
Decrease	2,289
The number of warrants registered for receipts from customs, lands, internal revenue, direct tax, and miscellaneous sources was	13,156
In the preceding year	11,946
Increase	1,210
The number of warrants registered for payments and repayments in the War, Navy, and Interior (Pension and Indian) Departments was	12,564
In the preceding year	12,249
Increase	315
The number of drafts registered was	40,046
In the preceding year	38,641
Increase	1,405

The number of journal pages required for the entry of accounts relating to the civil, diplomatic, internal-revenue, miscellaneous, and public-debt receipts and expenditures was	4,558
In the preceding year	4,266
Increase	292
The number of certificates furnished for settlement of accounts was	14,972
In the preceding year	11,302
Increase	3,670
The number of accounts received from the First and Fifth Auditors and Commissioner of the General Land-Office was	23,538
In the preceding year	26,579
Decrease	3,041

In the appendix will be found a statement of the receipts and expenditures of the Government, as required by the standing order of the House of Representatives of December 30, 1791, and section 237 of the Revised Statutes; also statements of the amount of money expended and number of persons employed, and the occupation and salary of each person, at each custom-house, as required by section 258 of the Revised Statutes.

I have the honor to remain, with great respect, your obedient servant,

JOHN ALLISON,
Register.

Hon. B. H. BRISTOW,
Secretary of the Treasury.

REPORT OF THE SOLICITOR OF THE TREASURY.

DEPARTMENT OF JUSTICE,
OFFICE OF THE SOLICITOR OF THE TREASURY,
Washington, D. C., November 18, 1875.

SIR: I have the honor to transmit herewith seven tabular statements, exhibiting the amount, character, and results of the litigation, under the direction of this Office, for the fiscal year ending June 30, 1875, so far as the same are shown by the reports received from the United States attorneys for the several districts.

These tables embrace respectively—

1. Suits on custom-house bonds.
2. Suits on transcripts of accounts of defaulting public officers, excepting those of the Post-Office Department, adjusted by the accounting-officers of the Treasury Department.
3. Post-Office suits, embracing those against officers of the Post-Office Department, and cases of fines, penalties, and forfeitures for violation of the postal laws.
4. Suits for the recovery of fines, penalties, and forfeitures under the customs-revenue and navigation-laws.
5. Suits against collectors of customs, and other agents of the Government, for refund of duties and acts done in the line of their official duty.
6. Suits in which the United States is interested, not embraced in the other classes.
7. A general summary or abstract of all the other tables.

An examination of this summary will show that the whole number of suits commenced within the year was 2,734, of which—

100	were of class 1, for the recovery of	$2,164,286 65
122	were of class 2, for the recovery of	1,381,119 28
315	were of class 3, for the recovery of	100,387 23
186	were of class 4, for the recovery of	607,489 25
1,205	were of class 5	
806	were of class 6, for the recovery of	5,907,330 50
	Making a total sued for, as reported, of	10,160,612 91

Of the whole number of suits brought, 653 were decided in favor of the United States; 12 were adversely decided; 537 were settled and dismissed; in 5, penalties were remitted by the Secretary of the Treasury; leaving 1,527 still pending.

Of those pending at the commencement of the year, 450 were decided for the United States; 124 were decided adversely; 701 were settled and dismissed; and in 20, penalties were remitted by the Secretary of the Treasury.

The entire number of suits decided or otherwise disposed of during the year was 2,502; the whole amount for which judgments were obtained, exclusive of decrees *in rem*, was $1,290,503; and the entire amount collected from all sources was $621,950.11.

The collections in suits for violation of the customs and navigation laws during the year, it will be noticed, are very much less than in the preceding year. The accompanying tabular statement, based upon returns from the principal customs-districts of the country, will give you a comparative view of the collections from this source for the years 1872, 1873, 1874, and 1875, showing in the districts mentioned a falling off, in comparison with the collections of the preceding year, of $359,500.53.

As the disbursement of the $125,000 appropriated for the prevention of counterfeiting and other frauds upon the Government has been made largely under your direction, and always with your advice, I have not deemed it proper to include in this report a detailed statement of the operations of this Office predicated upon that appropriation. If, hereafter, it is thought desirable, a special report in the premises can be made to you.

It is, perhaps, proper to remark that, in addition to the ordinary operations for the detection, prevention, and punishment of counterfeiting, a large portion of the fund has been used in what has proved to be a successful movement against corrupt combinations and conspiracies to defraud the United States of its internal revenue. In this connection I should also state that a portion of the fund has been used, under your direction, in a like successful movement against a similar combination to defraud the Government of its customs-revenue at the port of New York.

I am, sir, very respectfully,

BLUFORD WILSON,
Solicitor of the Treasury.

Hon. B. H. BRISTOW,
Secretary of the Treasury.

Comparative statement of collections in suits for violations of customs and navigation laws.

Judicial districts.	1872.	1873.	1874.	1875.
Maine	$12,594 49	$19,837 75	$1,598 45	$948 88
Massachusetts	136,703 51	403,996 80	9,860 59	2,468 88
Vermont	2,360 64	2,462 17	14,925 26	3,665 40
New York, northern district	8,962 34	53,652 96	43,494 87	13,732 15
New York, southern district	306,825 61	601,962 37	398,825 93	101,866 39
New York, eastern district	2,513 01	10,046 12	2,187 89	283 34
New Jersey	18,075 43	7,719 91	15,476 89	.....
Pennsylvania, eastern district	.....	.....	12,214 00	3,001 54
Maryland	13,120 00	633 06	885 00	1,028 03
South Carolina	.....	.....	.....	50 00
Georgia	250 00	.....	2,722 19	105 00
Alabama, southern district	.....	.....	.....	244 37
Louisiana	215 48	2,949 57	18,276 12	.....
Texas, eastern district	11,354 24	1,361 30	1,046 35	2,284 67
Michigan, eastern district	13,453 10	9,778 00	7,140 97	1,966 48
Missouri, eastern district	.....	2,459 40	1,200 00	323 20
California	22,119 69	8,630 19	2,980 04	25,941 55
All other districts	8,233 26	14,345 69	13,759 33	29,143 57
Total collections in all districts	556,780 80	1,139,835 22	546,553 88	187,053 35

REPORT OF SUPERVISING ARCHITECT OF THE TREASURY.

TREASURY DEPARTMENT,
OFFICE OF THE SUPERVISING ARCHITECT,
October 1, 1875.

SIR: On the 1st day of January, 1875, I assumed the duties of the Office of the Supervising Architect of this Department, and have the honor to submit herewith a report of the works under its charge during the past fiscal year, and their present condition; the progress of the work during the first six months being determined from the records and files of the Office.

BUILDINGS IN COURSE OF CONSTRUCTION JANUARY 1, 1875.

BOSTON, MASS., POST-OFFICE AND SUBTREASURY.

That portion of this building for which plans were prepared by the late Supervising Architect was nearly completed when I took possession of the Office and is now finished, partially furnished, and is occupied by the post-office and the office of the assistant treasurer. In consequence of the order making the subtreasury at Boston a place of deposit for silver coin, it was found necessary to increase the strength of the flooring sustaining the vaults to carry the additional weight, which was accomplished at a small cost.

Total amount appropriated for that portion of the building already erected $3,017,085 08
Total amount expended thereon to September 30, 1875 ..... 3,017,085 08

CHARLESTON, S. C., CUSTOM-HOUSE.

The stone-work of this building and the approaches may be said to be completed. A portion of the iron-work of the roof is received and is ready to be put in place, and contracts have been entered into for the completion of the iron-work. The building will be ready for occupancy before the close of the present fiscal year. The amount appro-

priated at the last session of Congress is sufficient to meet all the expenditures anticipated on account of the work.

Total amount appropriated for completion of building on modified designs	$698,915 43
Total amount expended to September 30, 1875	510,791 17
Balance in Treasury	188,124 26

CHICAGO, ILL., CUSTOM-HOUSE, ETC.

As soon after taking charge of the Office as my duties would permit, I visited Chicago, Ill., to inform myself as to the condition and progress of the work, and, upon inspection of the building, I discovered serious cracks in the walls and defects in the stone, which excited considerable anxiety in my mind as to the stability of the foundations and the fitness of the materials used in the construction of a building of its magnitude and character, and upon my return, as soon as the condition of the ground would admit of an examination of the foundation, I directed two of my assistants to visit Chicago and make an examination as to the cause of the cracks and the apparent unequal movement in the walls. The result of this investigation confirmed my fears; and, upon your attention being called to the matter, work was suspended in accordance with your directions, and a commission of three experts, not connected with the public service, was appointed to make a thorough test of the foundation and an examination of the materials used in the construction of the building. The report of this commission substantiated that made by the officers of the Department above referred to. Upon the publication of this report, the mayor of Chicago, in compliance with a resolution of the council of that city, appointed a commission of seven local architects and engineers to perform similar duties to those assigned to the commission appointed by you and to report to him their finding. A copy of the resolution of the city council was forwarded to this Department, with the request that permission might be given to these gentlemen to make the necessary examination and tests, which permission you granted. The report of the local commission differing essentially from that of the gentlemen appointed by the Department, a third commission, equal in number to the second, consisting of engineers, architects and builders, was appointed by you, and upon the receipt of their report resumption of the work was directed by you, and it is now in progress. Copies of the reports of these commissions, and the indorsements thereon, are hereunto appended. (See Appendix A.)

The condition of the building at the date of the suspension of the work, May, 1875, was as follows: The stone-work of the first story, on the Adams, Dearborn, and Jackson streets fronts, had been set and backed up with brick backing, and the entire iron-work of that story set in place. The first story of the Clark street front was nearly finished, and the cutting of the stone for the second story was nearly completed.

Total amount appropriated for this work	$4,300,000 00
Total amount expended to September 30, 1875	3,322,293 08
Balance in Treasury September 30	977,706 92

CINCINNATI CUSTOM-HOUSE, ETC.

On June 30, 1874, a site was acquired and the excavation commenced, but very little work had been done thereon. Since that date the excavation has been completed, concrete foundations laid, and the basement and area walls carried up to their full height. The red granite with

which the basement, area walls, and first four courses of the superstructure are faced is very nearly all supplied, and the contract will soon be completed. Of the gray granite for the superstructure, the first story is already cut, and also a large portion of the second story.

Total amount appropriated for this work	$2 [illegible] 00
Total amount expended to September 30, 1875	1 [illegible] 02
Balance in Treasury September 30	[illegible] 38

COLUMBIA, S. C., COURT-HOUSE AND POST-OFFICE.

The condition of this building on June 30, 1874, was as follows: The main cornice was set and the brick-work nearly completed. Since that date the building has been finished and furnished, the heating-apparatus supplied, and the building is now occupied. An appropriation of $5,000 was made at the last session of Congress for the purchase of land for additional site, and, in compliance with that act, the land has been secured.

Total amount appropriated for building and for furniture	$[illegible] 70
Amount expended to September 30, 1875	41[illegible],415 34
Balance in Treasury	1,222 36

HARTFORD, CONN., CUSTOM-HOUSE, ETC.

At the commencement of the past fiscal year the basement of the building was completed. The first-story beams were received, but not set in place. During the past fiscal year the granite-work of the first story has been completed, and that for the second and third stories is in progress. The walls on the north, south, and east sides of the building are up and ready for the second-floor beams. About one-third of the first-story cornice is now set, and the stones of the remainder are now on the ground. Upon the west side the walls are now level with the top of the architraves, and the window and door arches are now being set.

Total amount appropriated for the building	$350,000 00
Total amount expended to September 30, 1875	318,164 70
Balance available September 30	31,835 30

INDIANAPOLIS, IND., COURT-HOUSE AND POST-OFFICE EXTENSION AND REPAIR.

The work upon this building is completed, and the building has been refurnished.

Total amount appropriated	$194,000 00
Total amount expended	186,339 97
Balance available	7,660 03

LINCOLN, NEB., COURT-HOUSE AND POST-OFFICE.

At the beginning of the last fiscal year the excavation for this building had been begun, but little progress had been made. At the close of the building-season the condition of the work was as follows: The excavation and masonry for the basement were completed, ready to set the water-table and the first-floor beams.

During the winter's suspension of the work, it was found that the plans prepared by the late Supervising Architect involved the necessity of an expenditure in excess of the amount to which the cost of the building was limited; and upon reporting the facts in the case to you, I was

directed to prepare new plans, with a view to bringing the cost of the building within the amount to which it is limited, and accordingly the necessary plans were prepared and approved as required by law. Contracts have been entered into for the supply of the entire stone-work for the building, and the work is now in progress.

Total amount appropriated	$130,000 00
Total amount expended to September 30, 1875	41,527 51
Balance in Treasury	88,472 49

NEW ORLEANS, LA., CUSTOM-HOUSE.

The work upon this building partakes more of the character of alterations and repairs than of construction. During the past fiscal year the marble-work in the general customs-business room has been completed, and the work is progressing in the rooms to be occupied by the United States courts and the assistant treasurer.

Amount appropriated since modification of plans	$911,000 00
Amount expended to September 30, 1875	834,657 37
Balance available	76,342 63

NEW YORK CITY COURT-HOUSE AND POST-OFFICE.

The condition of this building June 30, 1874, was as follows: The roof of the building was nearly completed. Within the past fiscal year the building has been almost completed. The heating-apparatus has been set in place, and the different offices partly furnished. It is at present occupied by the Post-Office Department and the United States courts. A further appropriation will be required to complete the building.

Total amount appropriated for building and furniture	$8,028,850 22
Total amount expended to September 30, 1875	7,950,609 35
Balance in Treasury	78,240 87

OMAHA, NEB., COURT-HOUSE AND POST-OFFICE.

Within the past fiscal year the building has been completed and furnished, and is now occupied.

Total amount appropriated	$371,500 00
Total amount expended to September 30, 1875	369,098 18
Balance in Treasury	2,401 82

PARKERSBURGH, W. VA., COURT-HOUSE AND POST-OFFICE.

During the past year the basement, first story, and area-walls of this building have been completed, and the second story is rapidly progressing.

Total amount appropriated	$168,000 00
Total amount expended to September 30, 1875	151,066 24
Balance in Treasury	16,933 76

At the suspension of work on this building during the winter season, the supervising inspector of materials of this Office was directed to make an examination of the building, and it was found thereupon that the stone for the trimmings of the building contracted for was unsuitable for the purpose, and that fact being reported to you, by your authority the contract was canceled, and new contracts entered into for a more durable material.

PHILADELPHIA, PA., COURT-HOUSE AND POST-OFFICE.

At the beginning of the past fiscal year work had been commenced on the excavation. During the past year the proceedings in condemnation of additional land for the site of the building have been completed and the land secured. The excavation over the whole area is nearly finished, the greater part of the concrete foundations laid, and the granite of the area-walls on the Chestnut, Ninth, and Market streets fronts set in place. The cutting of the stone for the basement story is progressing rapidly, and will be completed in time for setting when work is resumed next season. The granite for the first story and about one-half of the second story is cut.

Total amount appropriated	$3,000,000 00
Total amount expended to September 30, 1875	2,732,808 97
Balance available	267,191 03

PORTLAND, OREG., CUSTOM-HOUSE.

This building has been completed during the past fiscal year, and is now occupied by the United States courts, post-office, internal-revenue, and land-office. It was originally designed for and intended that this building should accommodate the customs-offices in addition to those hereinbefore specified, but it was represented to the Department to be situated in an inconvenient locality for this purpose. The special agents of the Treasury Department now at Portland, Oreg., report that the locality is suitable, and that these offices should be moved into the building. I have caused steps to be taken to investigate the case more fully, and, on receipt of the report from the officers directed to make the investigation, I will advise you.

Total amount appropriated	$396,500 00
Total amount expended to September 30, 1875	385,356 04
Balance available	11,143 96

PORT HURON, MICH., CUSTOM-HOUSE, ETC.

At the commencement of the fiscal year this building was nearly ready for the first tier of beams. The exterior walls of the substructure were set to the sill-course. Within the past year the work progressed satisfactorily, and the building will be roofed in before the winter season.

Total amount appropriated	$200,000 00
Total amount expended to September 30, 1875	140,942 25
Balance available	59,057 75

ROCKLAND, ME., CUSTOM-HOUSE.

During the year the floor-beams have been set, floors laid, building roofed in, and the story to be occupied by the post-office completed. The exterior of the buiding is entirely completed; and the building would have been finished had the appropriation been sufficient. The appropriation made at the last Congress, however, has been found insufficient to complete the work, and the further sum of $20,000 is required therefor. Should it be obtained, the building will be entirely completed before the close of the present fiscal year.

Total amount appropriated	$120,000
Total amount expended to September 30, 1875	120,000

RALEIGH, N. C., COURT-HOUSE AND POST-OFFICE.

At the beginning of the last fiscal year the concreting had been completed, and the rubble foundation-walls were being set. During the year work has progressed satisfactorily, and before the close of the next fiscal year the building will be completed.

Total amount appropriated	$250,000 00
Total amount expended to September 30, 1875	131,264 57
Balance available	118,735 43

SAN FRANCISCO, CAL., BRANCH-MINT.

This building, including machinery and construction of refinery, is completed and occupied.

Total amount appropriated	$2,234,192 37
Total amount expended to September 30, 1875	2,201,198 32
Balance available	32,994 05

SAN FRANCISCO, CAL., APPRAISERS' STORES.

During the past fiscal year the basement-walls have been completed and the first-story beams set in place. This building is designed to be of brick, with stone trimmings. Serious delay was occasioned by the difficulty in securing suitable brick for the superstructure, but the persevering efforts of the Office to secure them at a reasonable cost have proved successful, and pressed bricks of a superior quality are being made, which, it is understood, are the first which have been produced on the Pacific Coast, and the work has been resumed.

Total amount appropriated	$508,000 00
Total amount expended to September 30, 1875	306,201 10
Balance available	201,798 90

SAN FRANCISCO, CAL., MARINE-HOSPITAL.

During the year this building has been completed, furnished, and is now occupied.

Total amount appropriated	$74,689 56
Total amount expended to September 30, 1875	74,647 15
Balance available	42 41

SAINT LOUIS, MO., CUSTOM-HOUSE.

During the past fiscal year work on this building has progressed satisfactorily. The exterior of the sub-basement, basement, sill and lintel courses, and pedestal courses of the first story, or the entire red-granite work, is set in place. The area walls are completed; also connection with the tunnel.

The iron-work of the basement and sub-basement is also set in place. The granite-cutting for the superstructure has been prosecuted with vigor, the first story being completed, the second nearly so, and the third under way, and delivery of the stone at the site of the building commenced. The first story will be set in place before the commencement of the winter season, should no unforeseen accident prevent the delivery of the stone.

Total amount appropriated	$3,400,000 00
Total amount expended	3,167,499 37
Balance available	232,500 63

TRENTON, N. J., COURT-HOUSE AND POST-OFFICE.

The entire stone-work of this building has been set to the main cornice, and the iron-work for the roof is under contract.

Total amount appropriated	$350,000 00
Total amount expended to September 1, 1875	291,029 99
Balance available	58,970 01

SITES.

The title to the additional land required for the United States custom-house at Evansville, Ind., has been perfected.

A suitable site has been donated by the city of Atlanta for a court-house and post-office.

A site has been purchased under condemnation at Grand Rapids, Mich.

Additional land has been purchased for the proper protection from risk of fire for the court-house at Columbia, S. C., and custom-house at Louisville, Ky. The appropriations for this purpose were, for Columbia, $5,000, and for Louisville, $12,500; but the land for the latter was purchased at a cost of only $6,000.

For the post-office, &c., at Jersey City, N. J., a suitable site, with a good brick building thereon, has been purchased for $70,000, the appropriation for the same being $100,000, and with the balance remaining available the building may be so arranged as to meet the present wants of the public service in that city.

The title to the lot donated by the city of Memphis, Tenn., as a site for a United States custom-house, has not been approved by the Attorney-General, but the objection heretofore existing has been removed and the title will probably be completed within a short time. The preparation of plans for this work has been deferred on this account.

Under authority of act of March 3, 1875, appropriating $160,000 for the purchase of a site for the proposed post-office, &c., at Harrisburgh, Pa., a commission, composed of three citizens of Harrisburgh, was appointed to receive proposals for a suitable site. The commission received ten proposals and reported unanimously that none of the property offered for sale was suitable. They were, thereupon, requested to make examination of such pieces of property in Harrisburgh as might seem to them suitable, and report thereon to this Department, submitting an estimate of the probable cost of the most eligible site. Their report has not yet been received.

Under the condemnation of a site for the court-house and post-office at Pittsburgh, Pa., one of the parties appealed and delayed the adjustment of the condemnation, increasing the cost of the site to $46,176.30 in excess of the amount appropriated, which sum the citizens of Pittsburgh have placed in the hands of the United States Depositary, which, with the appropriation, is sufficient to meet the entire award of the courts and all expenses incidental to securing title. The completion of the proceedings is anticipated at no late day.

A site has been purchased for the Marine Hospital at Pittsburgh, Pa., from the proceeds of sale of old property, as directed by act of June 22, 1874.

In compliance with the act of March 3, 1875, appropriating $10,000 for the purchase of a site at Topeka, Kans., a very excellent site has been secured, for which, it is understood, the citizens of Topeka subscribed $10,000, being the amount necessary in addition to the appropriation.

NEW BUILDINGS.

Besides carrying on the works in progress when I took charge of this Office, I have prepared designs and estimates for eleven new buildings, which have been approved, as required by law, and work is in progress upon the following:

ATLANTA, GA., COURT-HOUSE AND POST-OFFICE.

The excavation is nearly completed, and the contracts for the materials for the concrete awarded.

Total amount appropriated	$160,000 00
Total amount expended to September 1, 1875	2,018 49
Balance available	157,981 51

COVINGTON, KY., COURT-HOUSE AND POST-OFFICE.

Excavation for this work is completed, and contracts for the materials for the concrete awarded.

Total amount appropriated	$305,000 00
Total amount expended, including purchase of site, to September 1, 1875.	34,467 05
Balance available	270,532 95

DOVER, DEL., POST-OFFICE.

Work on excavation for foundation has been completed.

Total amount appropriated	$40,000 00
Total amount expended, including purchase of site, to September 1, 1875..	10,851 45
Balance available	29,148 55

EVANSVILLE, IND., CUSTOM-HOUSE.

The excavation has been completed; concreting nearly completed. Contracts for the brick and stone work of the basement-walls have been entered into. During the progress of the excavation of this building, it was found by test-borings that the site was underlaid by a vein of quicksand, and in order to secure foundations and guard against accident, it was deemed necessary to incur a largely increased cost for the concrete, covering the whole area of the building to the depth of three feet in thickness, instead of wall-trenches only, as in ordinary cases.

Total amount appropriated	$200,000 00
Total amount expended, including purchase of site, to September 1, 1875.	116,652 86
Balance available	83,347 14

FALL RIVER, MASS., CUSTOM-HOUSE, ETC.

Work is progressing on the excavation and foundation trenches.

Total amount appropriated	$240,000 00
Total amount expended, including purchase of site, to September 1, 1875..	136,100 03
Balance available	103,899 97

GRAND RAPIDS, MICH., CUSTOM-HOUSE, ETC.

The site has been cleared; plans and estimates are prepared, but work has not yet been commenced.

Total amount appropriated	$120,000 00
Total amount expended, including purchase of site, to September 1, 1875..	70,006 01
Balance available	49,993 99

HELENA, MONT., ASSAY-OFFICE.

The excavation is completed, basement-walls carried up to height of first-story floor-beams, and contracts awarded for stone and brick work of the superstructure.

Total amount apppropriated	$50,000 00
Total amount expended, including purchase of site, to September 1, 1875	16,962 00
Balance available	33,038 00

NASHVILLE, TENN., CUSTOM-HOUSE.

Work is about to commence upon excavation, and it is anticipated that the remainder of the season will be required for this work, as the excavation of the cellar is being made from solid rock.

Total amount appropriated	$150,000 00
Total amount expended to September 1, 1875	4,077 00
Balance available	145,923 00

BOSTON, MASS., POST-OFFICE AND SUBTREASURY EXTENSION.

Under act of March 3, 1873, the purchase of additional land for the extension of this building was authorized. Proceedings in condemnation have been consummated, nearly one-half of the land purchased, and the extension of the building begun. An appropriation should be made for the payment of the remainder of the site condemned, that the building as designed may be completed, the wants of the public service at Boston requiring it.

Total amount appropriated	$570,655 98
Total amount expended, including purchase of site, to September 1, 1875	440,513 30
Balance available	130,142 68

SAN FRANCISCO, CAL., SUBTREASURY.

Work has also begun upon the remodeling of the old mint-building at San Francisco for the assistant treasurer, and a portion of the work has been placed under contract. Upon examinaiton of the old building, it was found unsafe to retain any portion of the old walls. They were, therefore, taken down, and such material as can be made available will be used in the reconstruction.

Total amount appropriated	$60,000 00
Total amount expended to September 30, 1875	12,439 10
Balance available	47,560 90

ALBANY, N. Y., CUSTOM-HOUSE.

That portion of the site at Albany on which the buildings were reserved from sale has been partially cleared. The paving of Broadway in front of the property being in a dangerous condition, contracts have been awarded for repaving from curb to street-car track, and for making sewer-connection with main for drainage purposes. The amount to which the cost of this building is limited is, in my opinion, insufficient to warrant me in preparing plans and estimates for a building suitable in character to the city of Albany, and the preparation of plans and estimates has therefore been deferred until further action is taken by Congress. I recommend that the limit be increased to at least $700,000. It is also desirable that a strip of land, say twenty-five feet, adjoining that already secured, be purchased to obtain the necessary protection from fire from the adjoining property.

LITTLE ROCK, ARK., COURT-HOUSE AND POST-OFFICE.

I have also, in view of the limit of cost placed upon the building authorized to be constructed at Little Rock, Ark, deemed it inexpedient to take any action looking to commencement of work.

BUILDINGS REPAIRED AND REMODELED.

BOSTON, MASS., CUSTOM-HOUSE.

The repairs and alterations of this building have been vigorously prosecuted during the past year, and will be completed during the present month. It has also been partially supplied with new furniture and fixtures. The expenditures for the repairs of this building during the year amounted to $50,510.39.

NEW HAVEN, CONN., CUSTOM-HOUSE.

By the act of June 23, 1874, an appropriation of $20,000 was made for the repair and remodeling of this building. The condition of the building, however, was such that the amount of the appropriation was inadequate to place the building in proper condition. A contract, however, was made for the repairs of the first and second stories within the amount of the appropriation, and the repairs and alterations being quite as necessary in the third story, supplementary contracts have been made for that portion of the building, payment to be made from the general appropriation for repairs and preservation of public buildings; and new heating-apparatus has been supplied therefor.

NEWPORT, R. I., CUSTOM-HOUSE.

The interior of this building having been destroyed by fire on January 21, 1875, temporary provision was made for the accommodation of the customs-officers and the Post-Office Department, and an appropriation of $11,131.93 having been obtained for the repairs of the building and the construction of a store-house, immediately upon the same becoming available work, was commenced and pushed rapidly to completion and the store-house constructed. The work has been done within the amount appropriated therefor.

Extensive repairs have also been made upon the following buildings:

United States custom-houses at Bath, Me.; Cleveland and Cincinnati, Ohio; Machias, Me.; Milwaukee, Wis.; New York, N. Y.; Philadelphia, Pa.; Portsmouth, N. H.; Pittsburgh, Pa.; Suspension Bridge, N. Y.; Saint Louis, Mo.; Saint Augustine, Fla.

United States court-houses at Baltimore, Md.; Boston, Mass.; Philadelphia, Pa., and Springfield, Ill.

Appraisers' stores at Philadelphia, subtreasury, assay-office, and old post-office buildings at New York City, and the branch mint at New Orleans.

Extensive repairs are in progress on the following buildings, viz.:

United States custom-houses at Providence, R. I.; Richmond, Va.; Savannah, Ga., and Wheeling, W. Va.

SALES RECOMMENDED.

The following property should be sold, not being longer required for public service, and its care being a source of expense to the Government:

Old Government lots at Astoria, Oreg., Bermuda Hundred, Va., and

the Bridewell lot at Chicago, this last having been obtained in exchange for the old custom-house property in Chicago; the branch mint at Charlotte, N. C., marine hospitals at New Orleans, La., Natchez, Miss., and San Francisco, Cal., the first of which was sold during the past year, but the purchaser having failed to meet the terms of sale, forfeited a deposit of $10,000. I have also to recommend the sale of the old post-office at New York, the new building being now occupied, and No. 23 Pine street, which is rented as a restaurant, and is in such a dilapidated condition that it cannot be properly repaired. I have also to recommend that the proceeds of the sale of these two buildings may be authorized to be used as a fund for the purchase of a site for a custom-house in that city.

The demands of the public service require that this building should be commenced without further delay. The present custom-house building never having been intended for the use to which it is now put, is extremely ill-arranged for the purpose, badly lighted, and entirely too small for the accommodation of the customs department, part of which is located in adjoining buildings and part in buildings situated at a very inconvenient distance from the center of business; and large rents are annually paid for this accommodation, poorly suited to the proper transaction of the public business. I am informed by the collector and other customs-officers at New York that the expense of collecting the revenue is greatly increased by the necessity of transporting goods to the appraisers' stores, which are located more than two miles from the custom-house, and the difficulty of this transportation during the winter months, when the streets are obstructed with snow, is very great; and it has been during this transfer that many of the frauds have been committed which have been most difficult of detection, and by which the Government has sustained heavy losses. The yearly rent paid for the necessary additional accommodation of this department of the public service amounts to $143,000; beside which, $10,000 is annually paid for repairs, which amounts to nothing more than an improvement of private property by the Government.

The present condition of the assay-office in New York City will necessitate the speedy erection of a more suitable building for this branch of the service. I have conferred with the Director of the Mint, who agrees with me in the opinion that a less central location for this building would be equally well adapted to the proper transaction of the work which is carried on in refining the precious metals, and that the injury to surrounding property through the action of the acid-fumes connected therewith is so detrimental that it should have weight with the Government in its selection of a proper site for these works. The iron-work of the building in question has become so injured and weakened that, notwithstanding efforts have been made to render it as secure as possible, it is in a very dangerous condition. It is also of insufficient capacity, is ill-arranged, and ill-lighted. A new building, located in a less central position, should be commenced at once, so constructed as to be burglar and fire proof, and that part of the building particularly devoted to the refining should be built of such materials as will suffer no deterioration from the processes employed. On the completion of the new building the old building and site would realize by sale a sum more than sufficient to defray the expense of purchasing a site and erecting thereon a suitable building.

Upon my entry into this Office there were in process of execution contracts for cutting granite for the superstructures of several of the largest buildings now being constructed under the supervision of the Treasury

Department. These contracts, known as the percentage contracts, provide for the payment to the contractors of the actual cost of all labor and materials used in the work of cutting, dressing, and boxing the stone, increased by 15 per cent. of the same. While there are advantages in this system of executing this very important branch of the service, I am persuaded that it is founded in a mistaken principle, and that so long as the profits to contractors are in proportion to the extent of the expense of their work, the Department will find great difficulty in keeping the cost of the same within reasonable limits.

In view of the fact that nearly one-third of all the appropriations made by Congress for the construction of public buildings under this Department is expended in cutting the stone for these buildings, much attention has been given to the stone-cutting, with a view to reducing as far as possible its cost, and while this branch of the work is believed to be still too expensive, yet I am gratified with the results thus far. A new form for reporting the monthly operations at the various quarries has been prepared and adopted; also a new system of exhibiting the various kinds and quantities of cutting upon each stone, with the cost of the same, by means of which the Department will at all times be able to determine whether or not the cost is being kept within the estimate for the same, and also to make comparisons as to the expense of similar work under different contracts. A more vigilant system of keeping the time of mechanics and laborers and the expenditure of materials has been introduced upon all these works, from which good results are expected. There has also been a reduction in the grade of cutting on all the elevated portions of buildings, both on the plain and ornamental work. This alone affords a very great reduction in the cost, without in any degree diminishing the effectiveness of the design, as it is well known that the delicacy with which the material of a building is treated must be diminished in a proportionate ratio as the parts are farther removed from the eye. In fact, an elaboration of the detail-work and fineness of cutting are possible which very greatly detract from the vigor of the result. By judicious superintendence and frequent inspection of the work done under these contracts, it is believed that they may be executed with a fair regard to the interests of the Government.

I desire particularly to invite your attention to a subject which presented itself to me very shortly after my entering upon the duties of this Office. I refer to the manner in which designs are prepared for the public buildings erected under the Treasury Department. These designs have heretofore been made by the Supervising Architect, and have been so made up to the present time, but the very strong reasons which present themselves against this practice have convinced me that it should be remedied as speedily as may be. I have given much thought to this subject, and while I am not now prepared to present for your consideration any specific plan by which the radical defects of this method of procedure in designing the public buildings throughout the country may be remedied, the vital point of any system which may be adopted must be to remove the power from the Supervising Architect to make designs, and restrict his duties to those simply of a supervisory nature. I will, as concisely as possible, state what reasons have led me to form my opinions in regard thereto.

Experience has shown that it is difficult, if not impossible, to separate the office of the Supervising Architect from political control to a greater or less degree, and thus it is possible that the incumbent may be, both by nature and want of proper study and experience, totally unfit to fulfill this most responsible duty, and the country is liable

thereby to be burdened by structures utterly lacking in those architectural qualities which should be found in the works of a great nation. The stamp of inefficiency so imprinted in the national architecture is not of a nature soon to pass away, for not only will it remain itself a monument to a vicious system, but its teachings for evil can never be fully estimated. But should this evil be escaped, there remain yet others. The immense amount of routine work which occupies the attention of the Supervising Architect, the varied nature of the duties which devolve upon him, and the fact that he is at no time free from interruption, leave him no opportunity for the proper study of the designs which he is required to make. This work is done under all the disadvantages of want of time, want of quiet, and almost entire preoccupation with other matters, which must always result in work of an imperfect and unsatisfactory character. Architecture is an art, and, like all arts, he who practices it successfully must give himself up to it without restraint. No good work has ever been done without severe study, and the artist must be able to throw himself unreservedly into the contemplation of the problem. And, furthermore, the objects for which the buildings erected in this Office are constructed are, with very slight exceptions, so nearly alike, that the difficulty, the impossibility, of endowing them with variety and individuality must be apparent. These points are, in my opinion, beyond dispute, and I cannot, therefore, allow this opportunity to pass without invoking your aid to remedy this state of things. I owe it, first, to myself, for I am before the people to be judged, as other men of my profession are who do not labor under the same difficulties as myself, and if my works fail of that artistic merit which the public have a right to expect, the blame is laid upon me, and not to the false system under which I work, and where it belongs. I owe it, further, to the profession of architecture, whose members have a right to their share in the honor of increasing the dignity and beauty of the art in this country, and whose work must do infinitely more to this end than the endeavors of any one man, be he ever so gifted. And, lastly, I owe it to the public, whose money I am placed here to watch, that it be faithfully and wisely expended, and that the best results attainable from it are achieved. I fail to do my whole duty in this if I remain inactive in this direction; for by some other system than that now obtaining, much better, more artistic and worthy work can be done.

Since entering upon the duties of this Office the force employed has been reorganized, and some important changes have been made, and with good results to the proper prosecution of the public business; and I cannot speak with too high commendation of the faithfulness, energy, and ability of the gentlemen forming my corps of assistants. I would here offer them my thanks for the valuable aid which they have given me in carrying out the works intrusted to my care. While required by the regulations of the Office to work an hour longer in the day than other employés of this Department, amounting in the aggregate to forty-five days a year, they have willingly given their evenings to the Office when the exigencies of the public service required this at their hands, and that without extra compensation. And finally, to you, sir, I would tender my hearty thanks for the sympathy and support which I have found extended to me from the first day of entering upon my duties here, and for the wise counsel with which you have at all times assisted me. In taking charge of an office the responsibility of which is so great, and which requires such care and assiduity in the proper performance of the duties connected with it, and under circumstances, as you know, of considerable embarrassment, your aid and counsel have

added greatly to any success which may have attended my labors, and have greatly increased the pleasure with which my duties have been performed.

I am, sir, very respectfully, your obedient servant,

WM. A. POTTER,
Supervising Architect.

Hon. B. H. BRISTOW,
Secretary of the Treasury.

REPORT OF THE CHIEF OF THE BUREAU OF STATISTICS.

TREASURY DEPARTMENT,
BUREAU OF STATISTICS, *November* 23, 1875.

SIR: The chief of the Bureau of Statistics has the honor to submit the following report of its operations during the fiscal year ended June 30, 1875.

CLERICAL FORCE.

The clerical force of the Bureau at the close of the year, in addition to the chief clerk, Mr. E. B. Elliott, consisted of 29 male and 12 female clerks, who were employed as follows:

Divisions.	Names of chiefs.	Number of clerks.		
		Males.	Females.	Total.
Examination	J. N. Whitney	3	1	4
Compilation	Thomas Clear	12	2	14
Tonnage and immigration	L. F. Ward	4	2	6
Registry of merchant-marine	J. B. Parker	3	1	4
Publication and miscellaneous	James Ryan	1	1	2
Library and files	E. T. Peters	1	1	2
Stationery, pay, property, copying, and miscellaneous	J. D. O'Connell	1	1	2
Revisor	R. A. McMurray	1	.....	1
Translator	A. H. Girard	1	.....	1

In addition to the clerks above designated, one assists the chief clerk, and one, a female clerk, has charge of the correspondence and postal arrangements and also performs a variety of miscellaneous work.

REDUCTION OF THE CLERICAL FORCE.

In last year's report the subject of the reduction of the clerical force of the Bureau, which was made in the first session of the Forty-third Congress, was considered, and a statement of the extent and cost of the clerical force of the Bureau since its establishment in September, 1866, submitted. The fact was exhibited that during the previous fifty-three months there had been a decrease in the monthly average of about eight in the number of employés and $640 in salaries, although the work of the Bureau had gradually increased. While expressing regret at the diminution thus made, the undersigned then remarked:

Any reduction in the scope of its work, or diminution in the frequency of publication of important commercial statements, is deemed unadvisable, as such a curtailing of the work of the Bureau would necessarily impair its usefulness to the public. Indeed, the demands upon it are steadily in the direction of increased activity, necessi-

tating the cultivation of a more extended field of inquiry. The hope is, therefore, confidently entertained that a small increase in the present number of clerks will be authorized by Congress at the ensuing session, in order that the progress of the Bureau in the direction of increased efficiency may not be retarded.

WORK OF THE BUREAU.

The work performed in the several divisions has been indicated in former reports so far as it was possible without entering into minute detail, and any statement that might now be presented would be only a repetition of former reports. It is quite impossible, either in a tabular or other brief statement, to exhibit the extent of careful, patient, and accurate labor performed in the several divisions, especially in those of examination, compilation, and of the preparation and revision of statements for publication, or of statements in response to the calls for statistical information which the Bureau is constantly receiving from members of Congress and others, and which are specially numerous during the session of Congress. In furnishing such information the resources of the library and the services of the librarian and his assistant are of great importance in enabling the Bureau to respond with promptness to inquiries upon a great variety of subjects. A new and very minute catalogue of the books and pamphlets in the library is now in course of preparation.

PUBLICATIONS OF THE BUREAU.

Monthly reports.—The law establishing the Bureau provided that the director should "prepare and publish monthly reports of the exports and imports of the United States, including the quantities and values of goods warehoused or withdrawn from warehouse, and such other statistics relative to the trade and industry of the country as the Secretary of the Treasury" might "consider expedient."

In accordance with this provision the undersigned, during the period of nearly six years in which the Bureau has been under his direction, has published monthly reports of the commerce and navigation of the United States, containing also a variety of miscellaneous statistics, of which reports from 2,500 to 3,000 copies have been distributed, monthly, among members of Congress, editors, political economists, the officers of boards of trade, and other persons to whom the information therein contained seemed likely to be useful. That they were extensively used and appreciated by those who received them, was indicated by the frequent notifications received from persons who from any cause failed to receive their numbers at the usual time and by the promptness with which the attention of the Bureau was called to any real or supposed error in the tables. Nor was their use confined to our own country, a few hundred copies having been transmitted to the United States legations and consulates and to leading statesmen and political economists in the principal foreign nations. Among those to whom the reports were furnished were some of the ablest contributors to the leading economical publications of Europe, especially those of Great Britain and France. And some of these writers have heretofore devoted much attention to the preparation of articles on the trade of the United States, for which the monthly reports supplied them with the requisite data.

Since the commencement of the current fiscal year, however, the monthly reports have been discontinued in obedience to the provisions of an act passed at the last session of Congress. The information which they formerly embodied will in future be consolidated into tri-monthly statements and published in reports which will be issued quarterly.

It may seem improper for the undersigned to offer an opinion in opposition to a change so recently made, (and which may be assumed to have received the careful consideration of Congress,) and he would hesitate to do so, did he not find his own views on the subject strongly confirmed by those of merchants, editors of leading commercial journals, and other persons whose position and experience give weight to their opinions. From many of such persons there have been received expressions of regret at the discontinuance of the monthly reports.*

The general desire for monthly data on the state of our foreign trade has been met in part by the issue to the newspaper-press of summary statements of our exports and imports, a course which will be continued unless it be disapproved. Indeed, the tendency is in the direction of still more frequent publication of the trade-statements, several applications (†) having recently been made for that purpose.

As the discontinuance of the monthly reports was probably decided upon with a view to increased economy in public expenditures, it is proper to remark that the only saving effected will be a small amount in the cost of printing, for in clerical labor there will not merely be no reduction, but a slight increase, owing to the necessity of consolidating into each quarterly statement the details of three monthly returns received from the various customs-districts.

Annual report of commerce, immigration, and navigation.—The volume for the fiscal year ended June 30, 1875, was compiled and sent to press at the usual period.

For many years prior to the adoption of the Revised Statutes, in 1875, the annual supply of 300 copies of the Report of the Chief of the Bureau of Statistics on Commerce and Navigation was authorized by law to be printed for the use of the Treasury Department. This provision of law was, for some cause unknown, (probably through inadvertence,) omitted from the Revised Statutes. Much difficulty has been experienced in securing copies for the use of the Department, application having to be made, for the volume for 1874, to individual Representatives and Senators for a portion of the supply to which they were each by law entitled. As the report is not stereotyped, and as it is therefore impossible to obtain additional copies after the type has been distributed, it became necessary that a requisition should be made for 200 copies of the report for the fiscal year 1875, in order to secure at least a partial supply.

Owing to the present considerable and increasing demand, at home and abroad, for this document, it is highly desirable that Congress annually provide for a supply, for the use of the Departments of the Treasury and of State, of not less than 1,000 copies. To supply our

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* Extract from a letter recently received from a well-known statistician:

"I beg leave to acknowledge the receipt of numbers of the monthly reports of the Bureau of Statistics, completing my files.

"I have found these reports as they have been issued the most valuable source of both the special official information I have required, and also of the more general statistics needed in the consideration of the revenue questions. They are more valuable than the British monthly reports, because of the form you have given them. I hope the suspension of their preparation will be but temporary, and that Congress will authorize their renewal at an early day."

† At a meeting of the Pork-Packers' Association of the United States, recently held in Saint Louis, the following resolution was presented by the committee on business and adopted:

"*Resolved*, That this convention recommend that the secretary of the association make application to the Secretary of the Treasury for weekly reports of the exports and imports of provisions from and into the principal ports of this country, in detail, and give the aggregate returns promptly to the public."

customs-officers alone, which is essential, will require from 200 to 300 copies. It is also essential that chambers of commerce, boards of trade, and other commercial bodies, as well as writers on commercial and economical affairs, be provided with copies, all of which have heretofore been supplied by the Bureau so far as it had the means, and they still rely upon it for future supply.

Giving in detail, as this annual does, the statistics of our trade with each foreign country and of each of our customs-districts, it possesses great value, not merely to statesmen, legislators, and commercial men in this country, but to our ministers and consuls abroad, as well as to foreign statisticians and public officials, who are earnestly desirous of an interchange of statistical publications.

The commercial interests of the country, therefore, imperatively demand that each United States legation and consulate be furnished with a copy of this annual. For like reasons, it is also in a high degree desirable that the applications for it, made to the Department of State by foreign governments, should be promptly honored. In comparison with the large cost of the composition of 1,060 pages of rule and figure work, the expense of paper, press-work, and covers for the additional number now urgently requested would be inconsiderable.

List of Merchant-Vessels of the United States.—The seventh annual statement of "Vessels registered, enrolled, and licensed under the laws of the United States, designating the class, name, and place of registry," as well as the official number and signal-letters awarded to each vessel, was prepared and 2,000 copies published for distribution to the officers of customs, the masters of vessels engaged in the foreign trade, and the principal ship-owners, as well as to the commanders of United States war-vessels. The value of this list has been enhanced by the insertion therein of a carefully prepared "code-list," giving the signal-letters assigned to all sea-going vessels, arranged in their regular alphabetical order, without regard to the initial letter of the names of the vessels. Ship-masters can, by reference to it, obtain the name, tonnage, and home-port of any vessel exhibiting her signals at sea. This volume also includes a list of the vessels belonging to the revenue-marine, giving the date and place of building and the number of the officers and men; also a list of the vessels now belonging to the United States Navy, giving their name, rate, class, guns, tonnage, means of propulsion, and station of each.

SPECIAL REPORT ON IMMIGRATION.

During the past year copies of this report in the German and French languages were forwarded to the continent of Europe for distribution in the countries where these languages are spoken. The English edition being so nearly exhausted, it has only been possible to supply copies to individuals upon application to the Bureau. It being important that a supply of this edition be kept at each United States consulate in the United Kingdom, as has been heretofore done, the recommendation is repeated that there be printed from the stereotype-plates three thousand copies of the Special Report on Immigration, which should contain also a map of the United States, for distribution in English-speaking countries to intending emigrants.

The completion of the translation of this report into the Swedish language, and its transmission through you to Congress, was mentioned in last year's report. The recommendation for its publication and distribution in Scandinavian countries is hereby renewed and its importance strongly urged.

That the report under consideration has been highly appreciated, and has proved substantially useful in aiding intending emigrants to select with intelligence future homes, has been indicated in the reports and letters of United States consuls in Europe, and attested by others who were well qualified to form correct opinions on the subject. The eminent political economist M. Chevalier, in a long article on colonization in Algeria and in the United States, published some time ago in a Paris journal, calls particular attention to this report, and earnestly suggests the preparation of a similar work by the government of Algeria for circulation in France as a means of stimulating emigration to that colony, which he characterizes as "that magnificent dependency of France in Africa."

Of the object and character of this report M. Chevalier says:

This volume is intended to serve as a guide to the waves of population which are flowing into the northern portion of the new continent from the old, to let every one know what part of the immense territory of the Union, still unoccupied, is the best suited to his tastes and needs. * * * It is a complete repertory, prepared with scrupulous care; a valuable and safe guide.

From another source, though in the same country, a substantial recognition of the utility of the work has been recently received in the form of a medal and a diploma awarded to the undersigned by the International Geographical Congress held at Paris in August, 1875, which award was chiefly made for the report on immigration.

LABOR IN EUROPE AND AMERICA.

In the last and two previous reports of the Chief of the Bureau, the fact was mentioned that he had devoted much time and money, while in Europe in 1872, to investigations in regard to the cost of labor and subsistence and the conditions of the working-classes, more especially in those countries which compete most actively with the United States. Owing to the pressure of official duties, and to consequent impaired health, the completion of his special report on this subject was considerably delayed, but this delay has enabled him to obtain, through correspondence with our consuls and others, fuller and more recent data, which will add materially to the value of the work. The report, embracing not only information in regard to European labor, but to that of the United States and British America, was finally completed during the past summer and submitted to you for transmission to Congress. The scope and object of the work are sufficiently indicated in the prefatory letter.

In regard to that portion of the report which relates to the United States, it may be proper to remark that the rates of wages and prices of provisions which are given in the tables are based upon data obtained in part through officers of internal revenue, and in part from the proprietors of industrial establishments and other employers of labor. In many cases the circular of inquiries sent out by the Bureau failed to elicit replies from those to whom it was addressed, and the returns from some of the States were consequently so meager that the mean rates of wages and the mean cost of the leading articles of subsistence deduced therefrom could not be considered as marking the true average for the State. To remedy this defect in future editions, it is desirable that means should be provided to enable the Chief of the Bureau to make investigations on those subjects in the chief centers of manufacturing industry and in the principal agricultural districts of the country, by means of personal inquiry, as was done in some European countries, especially in Great Britain, Belgium, and Germany.

Although the preparation of the report under consideration was not formally enjoined by any act or resolution of Congress, yet it was undertaken in obedience to an urgent public demand, of which not the least important indication was found in the numerous applications made by members of Congress for such information as the work contains. Since its completion a few hundred copies have been sent to the principal newspapers and to persons likely to be interested in the subjects therein discussed. In the almost unanimous voice of the press, as well as in the appreciative acknowledgments received from prominent persons among the recipients of the volume, the undersigned finds gratifying evidence of the correctness of his convictions that the work would supply a public need which was urgently and widely felt.

The desire to obtain this book has been so general that a large number of copies, in sheets, have already been purchased by private publishers from the Congressional Printer, in accordance with the provisions of the act of June 25, 1864, and it is highly probable that the future demand for this report will equal that for the special report on immigration, of which about 8,000 copies, it is understood, were printed at the expense of private parties.

STATISTICS OF DOMESTIC COMMERCE, TRANSPORTATION, ETC.

Extract from an act approved March 3, 1875.

It shall be the duty of the officer in charge of the Bureau of Statistics to gather, collate, and annually report to the Secretary of the Treasury, for transmission to Congress, statistics and facts relating to commerce with foreign nations and among the several States, the railroad systems of this and other countries, the construction and operation of railroads, the actual cost of such construction and operation of railroads, the actual cost of transporting freights and passengers on railroads and on canals, rivers, and other navigable waters of the United States, the charges imposed for such transportation of freight and passengers and the tonnage transported.

In accordance with the provisions of law above cited, a division was formed in this Bureau at the commencement of the current fiscal year for the purpose of carrying into effect the intentions of Congress in this regard. As, however, the present report relates to the work of the Bureau during the fiscal year ended June 30, 1875, it is only necessary to say that the work above indicated has been entered upon with vigor, that the statistics already gathered are extensive, and that a comprehensive report on the subject will be made to you, for transmission to Congress, as early in the approaching session as the time necessarily required to collate so much material will permit.

In this connection, it may not be improper to state that, in the first and in nearly every subsequent report of the undersigned, attention was directed to the great importance of obtaining trustworthy information, not only in regard to the various industries of the United States, but to the quantities and values of merchandise and produce transported from and to the seaboard, and the fact deplored that there was no legislation under which it was possible to obtain the necessary data. The following paragraph, from his report for the year 1871, is a brief presentation of more extended remarks on the subject in the reports of other years:

Transportation of Products and Merchandise.

The movement of the crops toward the seaboard and of merchandise into the interior, whether by rail or by canal, lake, or river, would, if ascertained and published, afford information of great value. The officers of some of the great lines of railway are convinced of the public utility of such statistics, but, in the absence of compulsory legislation on the subject, do not regard it as compatible with their duty to stockholders to incur the expense which the employment of clerical services for this purpose would necessarily involve. Additional legislation will probably be necessary before full and satisfactory information in regard to this subject can be obtained.

The inability hitherto to obtain the information indicated was occasioned by two defects: first, the absence of compulsory legislation, as above mentioned; and, secondly, the lack of means to defray the expense of personal investigation.

This latter defect has, however, been remedied by the act of March 3, 1875, a portion of which is cited above, which appropriates a sufficient amount to secure so much of the information as is obtainable without further legislation.

DECLINE IN IMMIGRATION.

Immigration, which reached its culminating point in 1873, suffered a decline in the fiscal year 1874 to the extent of 146,464, and a further falling off of 85,841 in 1875, making a total decrease of 232,305 from the figures for 1873. This reflux in the tide of immigration is largely due to the general prostration of business in this country during the past two years, and the consequent diminution in the demand for labor. The indications of returning prosperity, however, especially in productive industry, give reason to hope that the demand for labor will soon regain its normal activity and the stream of immigration attain its usual volume.

The following comparative statements will exhibit the leading facts connected with immigration for several years past:

TABLE I.—*Comparative statement of Immigration and Emigration for the five fiscal years from July 1, 1871, to June 30, 1875, inclusive.*

Passengers.	Year ended June 30—					Total.
	1871.	1872.	1873.	1874.	1875.	
Total number of passengers arrived in the United States	386, 271	472, 034	520, 885	375, 679	295, 530	2, 050, 399
Total number of passengers departed from the United States	92, 547	92, 904	119, 154	134, 086	160, 786	600, 077
Excess of arrivals over departures, or total increase of population by immigration	293, 724	379, 130	401, 731	240, 993	134, 744	1, 450, 322
Passengers not immigrants:						
Citizens of the United States returning from abroad	43, 662	49, 056	47, 744	47, 730	50, 898	239, 090
Aliens not intending to remain in the United States	21, 259	18, 172	13, 338	14, 610	17, 134	84, 513
Total non-immigrants	64, 921	67, 228	61, 082	62, 340	68, 032	323, 603
Total aliens, *i. e.*, total arrivals, less citizens of the United States	342, 609	422, 978	473, 141	327, 949	244, 632	1, 811, 309
Net immigration	321, 350	404, 806	459, 803	313, 339	227, 498	1, 726, 796
Net emigration	27, 626	25, 676	58, 072	72, 346	92, 754	276, 474

TABLE II.—*Comparative statement of Immigration for the five fiscal years from July 1, 1871, to June 30, 1875, showing New York and "all other" districts separately.*

Passengers.	Year ended June 30—					Total.
	1871.	1872.	1873.	1874.	1875.	
Total number of passengers arrived in the United States:						
New York	228, 810	311, 735	337, 824	229, 443	164, 294	1, 272, 106
All other districts	157, 461	160, 299	183, 061	146, 236	131, 236	778, 293
Passengers not immigrants:						
Citizens of the United States returning from abroad:						
New York	19, 553	24, 628	27, 591	31, 294	29, 795	133, 061
All other districts	24, 109	24, 228	26, 153	16, 436	21, 103	106, 029
Aliens not intending to remain in the United States:						
New York	3, 052	3, 681	2, 899	4, 005	3, 505	17, 142
All other districts	18, 207	14, 491	10, 439	10, 605	13, 029	67, 371
Total non-immigrants:						
New York	22, 605	28, 309	30, 490	35, 299	33, 300	150, 203
All other districts	42, 316	38, 719	30, 592	27, 041	34, 732	173, 400
Net immigration:						
New York	206, 205	283, 226	307, 334	194, 144	130, 994	1, 121, 903
All other districts	115, 145	121, 580	152, 469	119, 195	96, 504	604, 893
Aliens:						
New York	209, 257	286, 907	310, 233	198, 149	134, 499	1, 139, 045
All other districts	133, 352	136, 071	162, 908	129, 800	110, 133	672, 264

Comparative statement of Immigration, by countries, ethnologically grouped, for the five fiscal years from July 1, 1871, to June 30, 1875.

Countries ethnologically grouped.	Year ended June 30—					Total.
	1871.	1872.	1873.	1874.	1875.	
England, Scotland, and Wales	*85, 455	84, 894	89, 482	61, 999	47, 889	369, 719
Ireland	57, 439	68, 732	77, 344	53, 707	37, 957	295, 179
Teutonic:						
Germany, Austria, Netherlands	88, 431	147, 200	159, 247	97, 623	55, 888	548, 389
Scandinavian:						
Sweden, Norway, Denmark	22, 132	28, 575	35, 481	19, 178	14, 322	119, 688
Latin:						
Belgium, Switzerland, France, Italy, Spain, Portugal	9, 833	12, 860	28, 361	21, 694	15, 684	94, 432
Slavonic:						
Russia, Poland	1, 208	2, 641	4, 898	5, 755	8, 966	23, 468
China	7, 135	7, 788	20, 292	13, 776	16, 437	65, 428
British North American Provinces	47, 082	40, 176	37, 871	32, 969	24, 051	182, 149
Spanish and Portuguese colonies:						
Mexico, South America, Cuba, Porto Rico	1, 218	1, 500	1, 760	1, 536	1, 939	7, 953
All other countries	1, 417	4, 440	5, 067	5, 111	4, 365	20, 409
Total immigrants	321, 350	404, 806	459, 803	313, 339	227, 498	1, 726, 796

* 16,042 of this number were reported as from "Great Britain, not specified."

TRADE WITH CANADA.

In the report of the undersigned for the fiscal year 1874, attention was directed to the fact that it was almost if not quite impossible to obtain full returns of our exports of merchandise to Canada.

As no legislation has since taken place with a view to remedy the legal defect therein pointed out, a portion of what was then submitted on the subject is here repeated:

Although the published statements of the Bureau in regard to the whole foreign trade of the country, and particularly of our exports by water, are nearly accurate, yet it has hitherto been found impracticable, if not impossible, to obtain full returns of merchandise exported to the provinces of Ontario and Quebec. The returns from several custom-houses on the Canadian border are necessarily defective, owing to the

want of legislation requiring persons exporting merchandise by land-conveyance to file full manifests of such merchandise and produce with the collector of the customs-district on the border, across which the articles pass into the foreign country, as is now required in the case of all exports to foreign countries in vessels.

The act of February 10, 1820, provides that—

"Before a clearance shall be granted for any *vessel* bound to a foreign place, the owners, shippers, or consignors of the cargo on board of such vessel shall deliver to the collector manifests of the cargo, or the parts thereof shipped by them respectively, and shall verify the same by oath or affirmation; and such manifests shall specify the *kinds and quantities* of the articles shipped by them respectively, and the value of the total quantity of each kind of articles; and such oath or affirmation shall state that such manifest contains a full, just, and true account of all articles laden on board of such vessel by the owners, shippers, or consignors, respectively, and that the values of such articles are truly stated according to their actual cost, or the values which they truly bear at the port and time of exportation."

It will be observed that the above stringent clause does not extend to *railway-cars*, which in 1820 were unknown, and, consequently, unspecified in the act above referred to, nor to other land-vehicles, which have long been used in the transportation of merchandise across the Canadian border.

The defective character of these returns having long been known, the undersigned took occasion during the months of July and August, 1874, to more thoroughly investigate the cause, with a view to its removal, personally visiting the chief border-ports on both sides of the line, from Quebec to Chicago, consulting with our collectors and consuls, as well as with the Canadian authorities. Careful inquiry developed the fact that nearly all the produce and merchandise which are exported to Canada, of which full and correct returns are not made to this Bureau, cross the border at Saint Albans and Island Pond, in the customs-district of Vermont, and at Suspension Bridge, in the district of Niagara. The customs-officers at those places do all that is possible, under the present defective legislation, to obtain the kinds, quantities, and values of the articles transported in railway-carriages to ports in the provinces of Quebec and Ontario.

After consultation with the customs-authorities of Canada in Quebec and Montreal, and also with consuls of the United States, the undersigned proceeded to Ottawa, where he made arrangements with the Commissioner of Customs of the Dominion for an interchange of the detailed statements of imports into each country from the other for the past fiscal year, and for a similar interchange of quarterly statements in future. This interchange will prove advantageous to Canada as well as to this country, for the reason that Canadian statements of *exports* to the United States are far less than our returns of *imports* show them to be; for it is evident that the imports into each from the other are the more accurate, because the customs-officers of both countries are constantly on the alert to see that no dutiable merchandise crosses the border without paying its prescribed impost.

From the detailed statements by provinces and ports, as well as by articles and values, prepared by the commissioner of customs of the dominion, the undersigned has been able to add to the stated value of articles embraced in the returns of collectors of customs of the districts of Vermont and Niagara, the official figures obtained from Canada, which figures are published in the statement of domestic exports contained in the annual report on commerce and navigation.

During the fiscal year 1875 the total value of domestic merchandise and produce which were omitted in the returns of the custom-houses on the Canadian border amounted to $15,660,218, as against $11,424,566 in the year preceding. The export of specie in the same period amounted to $2,070,746, as appeared by the statements of this Bureau, while the Canadian imports show but $1,886,337. The former sum is, however, believed to be correct, inasmuch as the figures have been chiefly obtained from the agent of the express-company which conveyed the specie to Canada.

In consequence of the increased disparity between the figures given by the Dominion government and those returned to this Bureau, and of the circumstance that no legislation has been effected since the facts above recited were submitted, the undersigned took occasion, recently, to visit the principal officers and agents of the transportation-companies which convey merchandise from our principal cities and manufacturing towns to the provinces of Quebec and Ontario.

It is proper to remark here that the fault does not wholly or even chiefly rest with the transportation companies, whose officers, on the

contrary, during the consultations had with them, professed a willingness to aid the Bureau in the collection of accurate data in regard to our exports to Canada, but is due to the neglect of the shippers or consignors of merchandise to furnish full information as to the kinds, quantities, and values of the articles shipped for exportation to Canada.

It was hoped that some arrangement could be made by which correct information of this trade might be obtained in the absence of the legislation heretofore suggested. But while the officers above mentioned expressed their willingness to co-operate with the undersigned in carrying into effect the plan he proposed, it became apparent that difficulties would be encountered — difficulties which could only be overcome through legislation.

The subject is again respectfully submitted for your consideration, with the recommendation that it be brought to the attention of Congress for such legislation as may be deemed necessary—legislation which, while calculated to remedy the defect above indicated, will not place unnecessary obstructions to freedom of commercial intercourse.

OTHER DEFECTIVE LEGISLATION.

Among other defects in existing laws, which render it difficult to obtain full and accurate statistics, may be mentioned those under which it is sought to collect and publish information pertaining to the following subjects:

I. The coastwise movements of vessels of the United States.

II. The products of the fisheries taken by American vessels and fishermen and brought into the United States.

III. The immigration into and emigration from the United States.

In regard to the above defects in legislation, the undersigned respectfully invites attention to his remarks thereon in his report for the fiscal year 1874; and also in reference to the destination of exports, the returns of which are not sufficiently accurate to enable the inquirer to trace commodities from their places of production to the places of consumption.

NUMBER AND TONNAGE OF VESSELS.

A statement showing the number of vessels and amount of tonnage belonging to the different customs-districts of the United States on the 30th of June, 1875, geographically classified, is appended to this report, (marked A,) and attention invited to the note in reference to unrigged vessels.

IMPORTS AND EXPORTS.

Detailed statements of imports into and of domestic and foreign exports from the United States during the fiscal year 1875, as compared with 1874, in which the increase and decrease are, respectively, indicated, are appended to this report, (marked B.)

Very respectfully, yours,

EDWARD YOUNG,
Chief of Bureau.

Hon. BENJAMIN H. BRISTOW,
Secretary of the Treasury.

REPORT OF THE SUPERINTENDENT OF THE UNITED STATES COAST SURVEY.

SIR: My detailed report for the year ending June 30, 1875, will give the limits, statistics, and other particulars of the work done in that year, under the following general heads, namely: Soundings in the Gulf of Maine; development of Jeffey's Bank; Cashe's Ledge, and Jeffrey's Ledge; and of dangers to navigation near Isles of Shoals; survey of the northwestern part of Mount Desert Island, and soundings in the adjacent waters; topography of the shores and hydrography of Eggemoggin Reach; survey of numerous islands near Isle au Haut, and in the eastern part of Penobscot Bay; and of the bay-shore between Castine and Bucksport, Me.; soundings in Penobscot River near Winterport; tidal observations at North Haven, on the Fox Islands, Penobscot entrance; determination of height and of co-efficient of refraction, near Camden, Me.; and of geographical points by triangulation in New Hampshire; tidal observations at Boston navy-yard; hydrography westward of Monomoy Peninsula, including the vicinity of Chatham Roads; triangulation and topographical survey of Taunton River, Massachusetts, from Fall River to Somerset; special observations on currents and soundings in Providence Harbor and Seekonk River, for the use of harbor-commissioners; survey of the shores of Thames River, Connecticut, and soundings between the United States naval station and Norwich; topography of New Haven Harbor; determinations in position of light-houses at the east entrance of Long Island Sound; hydrography in that vicinity, and special examination for sailing-courses into the harbors between Point Judith and New York; survey of Port Jefferson and soundings in the adjacent waters; triangulation near the boundary-line between Massachusetts and New York; latitude and azimuth determined at Cheever Station, near Port Henry, at Mount Merino, near Hudson, N. Y., and at Rouse's Point; shore-line survey and hydrography of Lake Champlain extended from the "Four Brothers" southward to Whitehall, including detailed surveys of the vicinity of Crown Point and Ticonderoga; topography of the shores of Hackensack River, New Jersey; angular measurements at Beacon Hill and Weasel Mount; preliminaries for determining points in New Jersey; observations for deducing transverse curves of velocity in the waters of Hudson River, East River, and the main channel of New York Harbor; tidal observations at that port; soundings in West Bank Channel and near Southwest Spit in New York Bay; topography and hydrography of Great South Bay, Long Island, between Islip and Howell's Point; survey of the west side and soundings through Barnegat Bay, New Jersey; hydrography of the entrance and approaches to Little Egg Harbor; preliminaries for determining points in the eastern part of Pennsylvania; triangulation and soundings for light-house purposes in Delaware River at Liston's Tree, and near the mouth of the Schuylkill River; magnetic declinations, dip, and intensity determined at the standard station in Washington City, D. C.; special topographical survey of Craney Island, Virginia, and soundings in the channel between it and the main shore; tidal observations at Fortress Monroe; survey and hydrography of James River, from Sloop Point upward to the vicinity of City Point, and of the Chickahominy from ship-yard upward to Forge Bridge; primary triangulation extended southward along the Blue Ridge to Fork Mount; reconnaissance from that station westward to the Kanawha; triangulation of Pamplico Sound, North Carolina, completed and connected with the primary base-line on Bodies

Island; survey of the shores extended from Juniper Bay northward and eastward to the Roanoke Marshes; hydrography of the sound extended from Shoal Point southward, including Yesocking Bay; detailed survey of the coast of South Carolina, and soundings through the water-passages between Cape Roman and Sullivan's Island; preliminaries for tracing altered shore-line at Hunting Island, South Carolina; hydrography of Savannah River from the bar upward to the head of Elba Island; hydrography of the coast of Florida north and south of Saint Augustine; survey and soundings of the inland sea-water channels south of Mosquito Inlet, including the head of Indian River; detailed survey of the Tortugas Islands, and hydrography of the harbor and reef; triangulation and topography of Tampa Bay, and hydrography of the bar and approaches; tidal observations continued at Saint Thomas, West Indies; topography and hydrography of the western coast of Florida between Pepper Keys and Ocilla River; hydrography of the vicinity of Cape San Blas, and of Saint Joseph's Bay; triangulation and reconnaissance westward and northward of the base-line near Atlanta, Ga.; latitude, azimuth, and magnetic elements determined at primary stations in that vicinity; preliminaries for determining points in the State of Kentucky; special shore-line survey and hydrography of the mouths of the Mississippi; observations on density, and relative to the volume of water-discharge; the bar and approaches to the delta sounded, and deep-sea lines of sounding run in the Gulf of Mexico; topography of the Mississippi River above New Orleans; triangulation in Missouri extended westward from Saint Louis to the vicinity of Gasconade River; reconnaissance for intervisible stations near the Ohio River; measurement of base-line at Spring Green, Wis., preliminary to the determination of points in Wisconsin; and hydrography completed in San Antonio, Musquit, and Aransas Bays, Texas. On the Pacific coast a detailed survey of the coast of California, and development of the approaches and channels of Newport Bay, near Point Lausen; topography of Santa Cruz Island, and hydrography of its vicinity; triangulation across the Santa Barbara Channel from Gaviota Pass; hydrography of San Luis Obispo Bay, and development of dangers to navigation near Point San Luis; special topographical survey of Point Sur for the Light-House Board; tides and currents observed in San Francisco Bay; soundings between Yerba Buena and Oakland, and abreast of Saucelito; development of a shoal off the South Farallone; buoyage of Noonday Rock; inshore soundings completed between Cape Mendocino and Rocky Point; reconnaissance for intervisible stations from the Pacific coast across the Sierra Nevada Mountains to the vicinity of Austin, Nev.; triangulation and topography north and south of Ten Mile River, California, completing the detailed survey between Point Cabrillo and Shelter Cove; discovery and determination in position of a dangerous rock in the passage used by coasters between Blunt's Reef and Cape Mendocino; triangulation of the coast between Rocky Point and Klamath River, including the vicinity of Redding's Rock; inshore soundings extended along the coast of California from False Klamath northward to Mack's Arch on the coast of Oregon; reconnaissance of the summit and region of Mount Shasta as a center for triangulation; topography of the shores of Columbia River, Oregon, extended from Oak Point to Smith's Island; tidal observations at Astoria; triangulation and topography of the coast from Point Adams south toward Nehalem River; detailed survey of the eastern shores of Duwamish Bay, Washington Territory, including the town of Seattle and part of Lake Union; tidal observations at Port Townshend, Washington Territory; surveys of harbors

on the coast of Alaska, with determinations of latitude, azimuth, the magnetic elements, and observations for correcting errors in geographical positions as now appear on charts, and for the height of Mount Crillon, Mount Fairweather, Mount Saint Elias, and other permanent landmarks on the coast of Alaska.

Progress in office-work has been kept up to that of the field-work of the preceding season. Computations of the current geodetic, trigonometrical, and tidal observations have been duly made, including the preparation of records and results for publication; tide-tables for the principal ports of the United States for the year 1876 have been published; the drawing of fifty-four charts has been in progress, and of this number sixteen have been completed. Twenty-nine sketches of harbors on the coast of Alaska have been drawn for publication by lithography; eleven new copper-plate charts have been begun, thirty-eight have received additions by engraving, and eleven have been completed. An aggregate of fourteen thousand copies of charts has been issued in the course of the year. The first volume of the Coast Pilot for the Atlantic coast, giving sailing directions for harbors between Eastport and Boston, has been published, and a second edition, illustrated by charts, is in preparation. The second volume, comprising the coast from Boston to New York, is well advanced toward publication.

Respectfully submitted.

C. P. PATTERSON,
Superintendent United States Coast Survey.

Hon. B. H. BRISTOW,
Secretary of the Treasury.

REPORT OF THE UNITED STATES LIGHT-HOUSE BOARD.

TREASURY DEPARTMENT,
OFFICE OF THE LIGHT-HOUSE BOARD,
Washington, September 1, 1875.

Hon B. H. BRISTOW,
Secretary of the Treasury:

SIR: Since the date of our last annual report it has been the endeavor of the board, as in past years, to administer the affairs of the Light-House Establishment with the greatest economy, consistent with a proper regard to the efficiency of a branch of the Government service so extensive and of such vast importance to the commerce, not only of our own country, but of the civilized world.

Besides the usual attention to the details of work by the officers of each district, many of the districts have been visited at various times during the year by members of the board itself, who have examined with care into the condition of the various aids to navigation, thus making felt the direct influence and supervision of the board.

The aids to navigation which are in place, and completed, are in good, serviceable condition, meeting the wants of mariners, and, in most cases, work is progressing satisfactorily with those for which appropriations have been made, though in some instances delay has been occasioned by the difficulty of obtaining titles to suitable sites.

The detailed statements contained in the body of this report under the heads of the fourteen geographical districts into which the Light-House Establishment is divided, embrace the work which has been done since

the last annual report, the constructions now in progress, those for which appropriations have been made, and those for which appropriations are recommended to Congress.

During the year the board has, under the personal direction of its chairman, assisted from time to time by other members of the board, made an extensive and careful series of experiments with regard to the merits of the mineral-oils of this country for purposes of light-house illumination. In order to obtain a great variety of oils, the board on November 24, 1874, advertised in various newspapers, published in different parts of the United States, inviting manufacturers and dealers to furnish it with specimens of domestic mineral-oil for test as to their fitness for light-house purposes, and as soon as a sufficient quantity had been received, the investigation was begun, and has been continued, with results which lead to the belief that there can be had in this country an oil of suitable quality for light-house use, and perhaps at a considerable reduction in expense. For the purpose of comparing our mineral-oils with those now coming into use abroad, the Trinity House authorities have been requested to send to the board a specimen of that used in lights under their control, the arrival of which is soon expected, when further experiments will be made. While with its present knowledge of the qualities of these oils the board proposes to put them into use at light-stations on the main-land, it would hesitate to endanger valuable property, and the lives of its employés, by placing them on board of light-ships, in structures standing in the water, or at other points from which the keepers could not escape in case of accident.

It was soon apparent that the use of mineral-oil would necessitate a change of lamps, and attention is now directed to the perfection of one which will produce the best results from this illuminant. It is thought that the lamps now used with lard-oil can be converted at no great expense, and successfully used with mineral-oil. Our experiments have shown that this oil can be more readily used in the smaller lamps and it is proposed, as soon as suitable ones can be prepared, to put it, into use at such stations of the fifth and sixth order as may be thought expedient, when, if it be found satisfactory, an attempt will be made to substitute it for lard-oil in lamps of the higher orders.

The board has also, through its appropriate committee, conducted an elaborate and extensive series of experiments with regard to sound, as applied to signals for warning the mariner of his approach to danger in thick or foggy weather, when other guides are of little use. Even at this stage of our experiments its success has been most gratifying, and by pursuing these inquiries the board hopes to arrive at results not only valuable to science, but of practical importance in enabling it better to contend with one of the worst elements of danger which the mariner has to meet on our extended and dangerous coast.

The limits of this report will not permit a detailed statement of the many interesting experiments which have been made and are now in progress, both with mineral-oil and with regard to sound-signals, even if at the date at which it closes the series had been concluded. It is, however, the intention of the board to publish an appendix to this report, prepared by the chairman of its committee on experiments, which will give full information of the work done and conclusions reached.

By act of Congress approved June 23, 1874, the jurisdiction of the Light-House Board was extended over the Mississippi, Missouri, and Ohio Rivers, "for the establishment of such beacon-lights, day-beacons, and buoys as may be necessary for the use of vessels navigating these streams." The rivers were divided into two districts; officers were

assigned to them, and steps were immediately taken for obtaining all possible information with regard to their waters, the nature of their obstructions, the necessity for suitable aids to navigation, and the kind and number of the aids required for the protection of commerce.

Examinations were made by the officers of the districts and by a special committee of the board designated for that purpose; the officers and pilots of the various steamboat-lines running upon the rivers were consulted, and no pains were spared to obtain information upon all points bearing on this novel and extensive field of labor which had so suddenly been assigned to the board.

A great diversity of opinion was found among the river-men, many believing that no great benefit to commerce would be derived from an attempt to light and buoy the rivers, while others were sanguine as to the result.

In the course of the examination it was soon evident that structures of a permanent and expensive character would be entirely out of place, owing to the frequent shiftings of the channels, which necessitate a corresponding change in the location of the lights; and it was also apparent that owing to the short distances at which the lights must be seen, rarely more than four miles, and usually not more than half that distance, powerful and costly lens-apparatus would not be required. Steps were then taken to secure a substantial and inexpensive lens-lantern of sufficient power to show distinctly at the distances required upon those waters, and one that could be depended upon in all weather. This could of course only be reached by experiment, and as it was desirable to at least test the value of the system determined upon, before the close of navigation, a limited number of the best lanterns obtainable for the purpose were purchased at small expense, and on December 4, 1874, the first lights under the national jurisdiction, for the aid of navigation on the western rivers, were established upon the Jefferson Barracks dike, and at Twin Hollows, Mo. On the following day another light was placed at Perry's Towhead, and after a few days' delay, to determine by actual service the adaptability of the lanterns for the purpose, others were located at such points as personal observation and information received from pilots showed to be necessary between St. Louis, Mo., and Cairo, Ill. Immediately afterward, on December 21, 1874, the first light was placed on the Ohio River, and a few others were established on the same river before the close of navigation for the winter.

Early in January, 1875, navigation was closed by the ice between Cairo and St. Louis; and although only a month had passed since the first lanterns were placed, steamboat-owners, pilots, and masters united in bearing testimony to the great value of the lights; and the success of the system was assured.

The stage of water had been most favorable for a practical test, and there remained no doubt of the efficiency and value of a completely organized system.

During the time the rivers remained closed by ice the lamps were not lighted, and no expense was incurred for their care. This time was occupied with experiments upon lanterns of various kinds, several being constructed expressly for our use, the object being to obtain, at moderate cost, a portable lantern, readily handled, which would show a steady bright light during the severest storms. Modifications and adaptations were made as found necessary, and the lantern now in use was finally selected, and the experience of the past season has proved it to be well adapted to secure the results desired. All the lanterns on these rivers are supplied with mineral-oil. As soon as navigation opened in the

spring the work of examining the channels and placing lights in these two river-districts was begun again, and it has been vigorously prosecuted, until we have now in position on the Mississippi, Missouri, and Ohio Rivers 280 fixed and floating lights, together with a limited number of buoys. An additional number both of lights and of buoys will be required, and the appropriation for their maintenance must necessarily be increased.

In this connection it may be well to state that there are upon these rivers 1,100 steamboats, with a tonnage of 258,000 tons; 832 licensed barges of 179,000 tons; coal-barges and other craft of 750,000 tons, making a total tonnage upon these rivers of nearly 1,200,000 tons. The total value of cargoes carried is estimated in round numbers at $400,000,000 per annum, and the coal sent to market by the Ohio River alone amounts to 4,000,000 tons yearly.

The necessity for lights on these waters is now unquestioned, the navigation being of the most intricate character. The "crossings" are very numerous, and at some of these, technically termed "blind crossings," where the banks show no diversity of outline, and where the channel is very narrow, the best pilots are frequently delayed and cannot always avoid disaster. At many points previous to the establishment of the lights the passage was never attempted on a dark night, but by means of the aids now in place the passages have been rendered practicable at all times. The hidden obstructions are numberless, in many places leaving barely room for the passage of large and heavily laden steamers. No better evidence of the intricate and dangerous nature of the navigation of these rivers need be adduced than the fact that there are hundreds of consecutive miles of river where the wrecks average more than one to a mile. No difficulty has been found in securing men to care for and attend the lights. They are selected from the people living on and owning property along the river, and they have been found, with few exceptions, to be trustworthy and alive to the demands of the service for which they are secured at small compensation. The fixed lights used are substantially-made lens-lanterns, which are suspended from an arm projecting from a post at an elevation of from 8 to 10 feet from the ground. They are of most value during the season of low water, though they afford important aid at other times. At points where the channel is made very narrow by permanent obstructions, and the passage is dangerous, buoys have been placed as day-marks, to which floating lights are attached at night. This lighting of the western rivers being an enterprise of great magnitude, and also differing widely in its details from any work hitherto undertaken by the board, has received our most careful attention; and in our attempts to establish an efficient and inexpensive system we believe that we have been successful. In doing this the board has availed itself not only of the knowledge and experience of its members and officers, but of all information it could gain from persons familiar with the rivers and interested in the subject. Numerous testimonials have been received from officers and managers of different steamboat-lines, from boards of trade, and other commercial organizations, and from various persons interested in the navigation of these waters, bearing emphatic testimony to the value of the system and its great benefit to commerce. Experience will doubtless show changes and improvements to be necessary, and the board will make them from time to time as their need is developed.

By act approved March 3, 1873, an appropriation of $50,000 was made for a light-ship for general service, and by act approved June 23, 1874, the same sum was appropriated for a light-ship for Winter Quarter

Shoal, coast of Virginia. Both the vessels are now nearly completed. They are stronger, larger, and more seaworthy than any ever before built by the board, and each has a powerful steam fog-signal. As soon as these vessels are completed they will be placed upon stations where the need of such aids has long been felt. Measures have been taken to sell light-ship No. 18, she having been surveyed and found unworthy of repair. Several of the light-ships now in service are much decayed and need extensive repairs, which will be made as rapidly as circumstances will permit, but it is thought that two of them will be found, on examination, so far decayed as to be past renovation, and an appropriation for at least one new light-ship is earnestly recommended.

Several of the steam-tenders belonging to the establishment are old, inefficient, and worn out; vessels purchased from private parties to meet emergencies, low in the water, of little power, and unfit for the rough work of supplying stations, towing light-ships in all weathers, and caring for the buoyage of the districts. They are in constant need of repair, and are a never-ending bill of expense to the establishment, costing more than efficient vessels built for the purpose, while able to do but a portion of the work required. A proper regard both for economy and efficiency would dictate that these tenders be sold and their places supplied by vessels built for light-house work. The board has estimated for two new tenders for the Atlantic coast, to replace those unfit for service, and also for an additional tender for the Pacific coast, where the establishment now has but one for the entire service, from the Mexican frontier to British Columbia. It is simply impossible for one tender to do the work required on a line of such extent, being about 1,500 miles, and this necessitates the frequent chartering, at high rates, of private vessels, for transporting material and supplies, and meeting emergencies, which often causes expensive and vexatious delays in carrying on necessary work.

The board, in preparing its general estimates for the support of the existing and authorized aids to navigation, has, with the exception of the estimates for the salaries of light-keepers, and for the maintenance of lights on the Mississippi, Missouri, and Ohio Rivers, made no increase upon the amounts asked for last year. It has made as close a calculation of expenses, based upon probable prices and quantities, as is possible so far in advance of the time when the appropriations will become available for use. For repairs and incidental expenses of light-houses, the board has estimated that $350,000 will be required. This amount is the same as that asked for last year, and which experience has shown to be necessary.

For expense of fog-signals, $50,000 will be required. This amount was appropriated last year.

For the salaries of light-keepers the estimate is $594,600, an increase of $9,600 over that for last year. This is owing to the additional number of keepers required by the erection of new light-houses. There are in actual employment, and required for new lights already appropriated for 991 light-keepers; the average pay authorized by law is $600 per annum for each keeper. This does not include the light-keepers upon the western rivers—280 in number.

For supplies of light-houses the estimate is $400,000, the same that was asked for last year.

For the expenses of light-ships the estimate is $240,000, the same as last year. This amount, it is thought, will be sufficient, although the number of light-ships on stations has been increased by two, that on the

wreck of the steamer Scotland, entrance to New York Harbor, and that on Winter Quarter Shoal, off the coast of Virginia.

For expenses of buoyage the estimate is $350,000, an amount which it is hoped will be sufficient, notwithstanding the greater number of buoys yearly required as aids to navigation.

For maintenance of lights on the western rivers the estimate is $150,000, an increase of $25,000 upon the amount asked for last year. This estimate is thought quite small in view of the number of lights now placed and yet to be placed on these waters; and it may be found necessary, in paying the salaries of the keepers of these lights, to use money from the general appropriation for salaries of light-keepers.

The board cannot too strongly urge the appropriation for the light at American Shoal, Florida Reefs. Upon the establishment of this light-house, together with the one now building on Fowey Rocks, but one more will be needed to complete a system of lights for this dangerous coast, which was commenced in the early days of the board, and which will render the navigation in this vicinity comparatively safe. The board has not submitted estimates for all the lights that, in its opinion, are necessary to render navigation safe, but having in view the necessity for economy in the expenditures of the Government, has made the estimates for special works smaller than for many years before. All those works that, in the opinion of the board, can be delayed for a time without manifest detriment to the service, though they will have to be built at no distant day, have been left out, in order that the aggregate of the estimates may be placed at the lowest practicable figure.

The board has to lament the loss, by death, of one of its officers, Commander W. N. Allen, United States Navy, inspector of the first light-house district, who died at Portland, Me., on February 18, 1875. The death of this officer has deprived the Light-House Establishment and the country, of the services of one who was universally recognized as a man of ability, who was conscientious and energetic in the discharge of his duties.

It is thought that the time has now come when it is proper to supply light-houses, particularly those at isolated points, with a limited quantity of reading-matter. By so doing, keepers will be made happier and more contented with their lot, and less desirous of absenting themselves from their posts. If the Government will provide for the keeping of books at light-stations as other light-house property is kept, and also provide a small number of books as a nucleus, it is believed the quantity will be swelled at individual stations, from private sources, to respectable dimensions. Libraries are supplied to the light-houses of England and France, and it is said that they exert the happiest influence upon the *personnel* of the service. Our establishment should do as much. The board has therefore inserted in its estimate for supplies the words "books for light-stations," and if they are allowed to remain and the board is thus authorized, it will supply to the more prominent and more isolated stations a few books during the year, if it finds that it can do so without trenching upon the funds needed to purchase the usual articles of supply.

CONDITION AND OPERATIONS OF THE LIGHT-HOUSE ESTABLISHMENT DURING THE FISCAL YEAR 1874-'75.

Light-houses, light-ships, fog-signals, day-beacons, and buoys belonging to the United States Light-House Establishment on the 1st July, 1875.

ATLANTIC COAST, INCLUDING FLORIDA REEFS.

Light-houses	343
Light-houses finished and lighted during the year ending July 1, 1875	6

Light-ships in position	22
Fog-signals operated by steam or hot-air engines	21
Day or unlighted beacons	317
Buoys in position	2,473

COAST OF THE GULF OF MEXICO.

Light-houses	52
Light-houses finished and lighted during the year ending July 1, 1875	1
Light-ships in position	1
Fog-signals operated by steam or hot-air engines	3
Day or unlighted beacons	8
Buoys in position	76

PACIFIC COAST.

Light-houses	32
Light-houses finished and lighted during the year ending July 1, 1875	4
Light-ships in position	0
Fog-signals operated by steam or hot air-engines	12
Day or unlighted beacons	31
Buoys in position	86

NORTHERN AND NORTHWESTERN LAKES.

Light-houses	195
Light-houses finished and lighted during the year ending July 1, 1875	6
Light-ships in position	0
Fog-signals operated by steam or hot-air engines	9
Day or unlighted beacons	2
Buoys in position	215

WESTERN RIVERS.

Lights established on the western rivers	280
Buoys placed in the western rivers	21

TOTAL AIDS TO NAVIGATION FOR THE ENTIRE ESTABLISHMENT.

Light-houses	622
Light-houses finished and lighted during the year ending July 1, 1875	17
Light-ships in position	23
Fog-signals operated by steam or hot-air engines	45
Day or unlighted beacons	358
Buoys in position	2,880
Lights established on the western rivers	280
Buoys placed in the western rivers	21

List of light-houses finished and lighted between July 1, 1874, and July 1, 1875.

Name of station.	Locality.	When lighted.
Indian Island	On the southerly point of Indian Island, east side of entrance to Rockport Harbor, Maine.	January 15, 1875.
Block Island (southeasterly)	On southeast end of Block Island	February 1, 1875.
Hudson City	On south end of Middle Ground Mud Flat, west of Hudson City.	November 1, 1874.
Hatteras Inlet	On the shoal known as Oliver's Reef, on the north side of the entrance to Hatteras Inlet from Pamlico Sound.	October 1, 1874.
Dutch Gap Canal:		
Upper light	At upper end of Dutch Gap Canal, James River, Va.	June 10, 1875.
Lower light	At lower end of Dutch Gap Canal, James River, Va.	June 10, 1875.
Timbalier	West side of Grand Pass, entrance to Timbalier Bay, in 7 feet water, on north side, near east end of Timbalier Island, La.	January 5, 1875.
Twin River Point	On Twin River Point, about 5 miles north of Twin River, west shore of Lake Michigan, Wis.	November 18, 1874.

List of light-houses finished and lighted between July 1, 1874, and July 1, 1875—Continued.

Name of station.	Locality.	When lighted.
Poverty Island	On the south end of Poverty Island, entrance to Green Bay, Lake Michigan.	September 1, 1874.
Big Sable	At Big Sable Point, on the south shore of Lake Superior, between White Fish Point and Grand Island.	August 19, 1874.
Portage Lake Ship Canal	At the entrance to Portage Lake Ship Canal, south shore of Lake Superior, on west side of cut.	November 20, 1874.
Outer Island	On the most northerly point of Outer Island, (Apostle group.)	October 20, 1874.
Rock Harbor	On the west side of the entrance to Rock Harbor, Isle Royale, about 12 miles from the eastern extremity of the island.	August 15, 1874.
Point Fermin	On west side of entrance to San Pedro Bay, Cal.	December 15, 1874.
Point Hueneme	On the main-land, at the eastern entrance to the Santa Barbara Channel.	December 15, 1874.
Piedras Blancas	On the point northwest of the entrance to San Simeon Bay, Cal.	February 1, 1875.
Point Adams (Mouth of Columbia River.)	On low ridge, nearly opposite outer black buoy, in south channel entering the Columbia River, Oregon side.	February 15, 1875.
Western rivers	There have been established on the Mississippi, Missouri, and Ohio Rivers, at the various points named in that part of this report devoted to the 14th and 15th light-house districts, two hundred and eighty lights, between December 4, 1874, and the present time, and twenty-one buoys have been placed in position.	Between December 4, 1874, and June 30, 1875.

List of lights of the different orders exhibited by the light-house establishment, corrected up to July 1, 1875.

	First order.	Second order.	Third order.	Three and one-half order.	Fourth order.	Fifth order.	Sixth order.	Reflector.	Ship-lanterns.	Lens-lanterns.	Total.
Atlantic and Gulf coasts	33	24	32	3	116	84	88	30	8	.....	418
Pacific coast	11	1	4	.....	13	3	.....	.....	.....	.....	32
Lake coasts	.....	2	19	8	58	33	72	.....	3	.....	195
Western rivers	.....	.....	.....	.....	.....	.....	.....	.....	.....	280	280
Total	44	27	55	11	187	120	160	30	11	280	925

List of light-houses discontinued between July 1, 1874, and July 1, 1875.

Name of station.	Locality.	When discontinued.
Savannah River. Obstructions light.	On a pile on obstructions, starboard side of channel, opposite northwest end of Elba Island.	October 15, 1874.
North Cut beacon, Milwaukee..	On the north pier, at the harbor of Milwaukee, Wis.	January 31, 1875.
Yaquina.....	On the north point of the entrance to Yaquina Bay, Oregon.	October 1, 1874.

In submitting this report it gives the board pleasure to state that every district of the extended coast of the United States is in good working condition, and has been constantly improved during the past year, and that no effort has been omitted to bring the light-house system of this country into as perfect a state as the circumstances will admit.

Respectfully submitted.

JOSEPH HENRY,
Chairman.

J. G. WALKER,
Commander U. S. N., Naval Secretary.
PETER C. HAINS,
Major of Engineers, U. S. A., Engineer Secretary.

REPORT

OF

THE SECRETARY OF WAR.

NOVEMBER 22, 1875.

Mr. PRESIDENT:

I am gratified to be able to state that since my last annual report a marked improvement has taken place in the *morale* of the service. The Army is now reduced to twenty-five thousand men. Recruiting was resumed in November, 1874, for the purpose of keeping up the standard number, and under a careful system in the selection of the men the class of recruits now received is of a superior quality. The number of desertions has been largely reduced, being about two thousand one hundred less than during the previous year, while the number of re-enlistments has increased nearly threefold. The state of contentment thus shown is due, in a great measure, to the excellent system of pay established, which is now graduated by length of service, and affords the soldier an opportunity to deposit his savings with the Government and receive interest for the same until the end of his term.

The Adjutant-General, under whose immediate charge the recruiting of the Army is placed, has raised to the highest standard of excellence the discipline at recruiting depots, and the recruits are now well instructed and drilled before being sent to join companies in the field.

I renew the recommendation for the enlistment of music-boys over twelve years of age, in order to furnish field-music to companies, and hope that suitable legislation may be had during the next session of Congress to supply this want.

Attention is invited to the accompanying report of the Adjutant-General upon the operations of the military prison, so far as they have progressed. The controlling reason for the establishment of a military prison has been that soldiers convicted of military offenses merely should be separated from the degrading influences to which they are subjected when confined with ordinary convicts. There have been 362 prisoners received during the year, and there are now 225 in the establishment. Those prisoners have been employed in various ways on the prison-building and about the post, thus saving the expense of employing labor. It is hoped that an appropriation will be made for starting workshops, for it is confidently believed that the prisoners may be made

to earn sufficient for their own maintenance, and in time that no appropriation will be required to be made by Congress for their support.

The desertions for the fiscal year ending June 30, 1874, were four thousand six hundred and six; of re-enlistments, six hundred and ninety-nine; the number of sergeants re enlisted, one hundred and forty-nine. The desertions for the fiscal year ending June 30, 1875, were two thousand five hundred and twenty-one; re-enlistments, one thousand nine hundred and eighty-six; sergeants re-enlisted, three hundred and forty-seven. No better evidence can be furnished of the improved condition of the service than by presentation of the foregoing figures.

During the past summer I took occasion to make a tour of inspection to various military posts in the West, for the purpose of personally informing myself as to their condition and needs, and the necessity for the retention of their garrisons, and for the purpose of obtaining more full information concerning them than could be had from written reports. All of those visited were found to be in good condition, the troops stationed at them to be soldierly and dutiful, and the officers anxious to do all in their power to carry out the wishes of the Government and to bring the military affairs under their charge to the highest point of excellence.

Situated, as many of these posts are, remote from railroads and the ordinary routes of extensive land and water travel, they are to a great extent isolated, and consequently those located there are deprived often of those comforts which others situated in more favored localities are familiar with. Nevertheless the devotion to duty, the absence of complaint, and the plain and unqualified desire to do promptly all that is required of them characterize both officers and men at every post which I visited during this tour.

The general sentiment prevailing, and the interest evinced by the great majority of those whom I met in the performance of their duties properly and well, satisfy me that reflections upon the present standard of military discipline are uncalled for, but, on the contrary, that it has constantly improved during each year since the war.

Under the act of March 3, 1869, all the regimental bands of the Army were mustered out of service, and as the act authorized the enlistment of a chief musician as an instructor of music in each regiment of Artillery, Cavalry, and Infantry, it was deemed a tacit authorization for organizing new bands by details of enlisted men of the Army, who generally receive some addition to their pay from the regimental funds, and in many cases from the personal subscription of the officers of the regiment. In my judgment the act above referred to should be repealed, and a military band of at least twenty-five musicians be allowed to each regiment. This number, while not large, would be sufficient, and when taking into consideration the ordinary casualties of the service caused by sickness or accident, would really give about twenty men to the band. If these were arranged in four classes, each of them receiving

a somewhat higher grade of pay than the succeeding, it is believed that bands could be formed the expense of which would not be large, and that the results to the service would be beneficial in a high degree. It is a fact not generally known that at present there is not an authorized band connected with the Army excepting the band of the Military Academy at West Point; still the necessities of the service and the pride of the officers of the regiments require that bands of more or less proficiency should be organized, and the expense occasioned thereby falls upon the officers and men of the regiment—an expense which it seems to me should be borne by the Government.

I call especial attention to that portion of the report of the Inspector-General in reference to the law concerning the employment of soldiers as servants.

The law of March 16, 1802, authorizes women (in number not exceeding four to a company) to accompany troops in the capacity of laundresses, and Army Regulations prescribe one laundress to every nineteen, or fraction of nineteen, enlisted men. Under the existing Army organization upwards of 1,300 laundresses are employed, and for all the work performed are amply compensated by the enlisted men. The aggregate cost to the Government for rations supplied these women is over $100,000 per annum, in addition to which quarters and fuel are furnished them, and whenever the removal of troops becomes necessary it involves a large amount of transportation for the laundresses, averaging annually about $200,000.

When troops serving in the field are changing station, owing to the fact that these women and their children cannot be transported with them, they naturally suffer by being left at posts without their natural protectors, and often at places where they would not generally be entitled to rations, fuel, and quarters. It has been found impossible to supply laundresses with even habitable quarters at many stations, owing to limited appropriations made by Congress for barracks during the past three years. Considerable suffering has consequently been imposed upon these people. It is believed that in consideration of the above-stated facts a material reduction, amounting to at least one-half of the present number of laundresses, would not only be a measure of expediency, but of absolute economy, and that reduction is recommended.

With the exception of the few official items contained in the archives of the War Department, the only information concerning the early history of our old military posts is gained from vague traditions and personal reminiscences. No record showing when, why, or by whom a military post was established, or who have been its commanders, or the origin of its name, in many instances, can be found by any officer assigned to its command. This serious omission can be corrected by requiring the commander of every post to keep a historical-record book, and to enter therein every important event occurring within the scope of his command—this book to be transferred by each commander to his successor,

and not to be removed from the post, unless it is abandoned, in which event it should be forwarded to the Adjutant-General, for file in the War Department. Such a book would be of great value for subsequent reference, as it would contain a catalogue of all errors committed, thus preventing their reoccurrence; also affording reliable information regarding special service of troops, and their results. As a faithful delineation of the stirring events of the early days of these frontier posts must in the future possess great historic import, so to the experienced officer its military significance and value as a record would be invaluable, and it would not be devoid of interest to those civilians who appreciate the importance of the rapid settlement and development of the resources of the West. It is within the province of the Department to direct that such report be kept hereafter, and it is my purpose to take the necessary steps therefor.

Owing to the fact that our Army is dispersed in small detachments to garrison military posts scattered at wide intervals throughout extensive districts of unpopulated territory, it becomes necessary to transport everything needful from remote furnishing-depots. Where there is no railroad or water communication an immense amount of wagon-transportation is required. Soldiers detached from the line, without any knowledge of the work, and against their wishes, are used as teamsters, hostlers, herders, &c., for this means of transportation. As the appropriations are insufficient to permit of the employment of civilians, these details are unavoidable. A great saving to the Government could be made in authorizing the enlistment of competent and experienced men for this special service. As the soldiers at present employed often maltreat, overwork, and take but little care of their horses, the consequence is that in a short time the teams, rendered unfit for further service, are condemned and sold. The transportation service, consisting of regularly-organized companies and battalions, with full complement of officers and privates enlisted especially for this duty, prevails in the German army, and has been found to work admirably.

At most of our sea-coast fortifications for many years past the troops have been compelled to take quarters in damp and unhealthy casemates in the absence of suitable buildings, which has given rise to numerous complaints and continued applications for better-ventilated and more comfortable quarters. Our medical officers have urgently recommended these appeals to the favorable consideration of the authorities, as a hygienic measure of great importance.

Notwithstanding the policy which discourages, with limited expections, the enlistment of married men, a large number of them succeed by fraudulent representations in entering the Army. Their presence there proves often a source of embarrassment to military discipline, as it is of injury to their families. The destitution of the latter leads to desertions, and is then urged upon the Executive as ground for the extension of clemency to the offenders. The conviction is entertained

that this growing evil might in large degree be corrected by appropriate legislation. Under existing regulations, except in cases of re-enlistment, the soldier on enlisting makes a solemn written declaration that he has "neither wife nor child," and it is believed that a law requiring him to verify such declaration by oath, and prescribing a severe punishment for falsely taking this oath, would do much towards the repression of what has come to be a chronic demoralization, followed by deplorable results alike to the service and to the families thus abandoned by their heads and natural protectors.

During the past year one hundred and two signal-stations have been maintained, to fill the system of stations of observation from which reports are necessary to enable warning to be given of the approach and force of storms and of other meteoric changes, for the benefit of agricultural and commercial interests. A series of daily telegraphic reports from stations in the West Indies, extending from Cuba, by Jamaica, to Barbados and the Windward Islands, has been arranged for.

The issue of the official deductions from the office of the Signal-Officer from the reports there received has continued during the year. A minute examination of these deductions and a comparison with the meteoric changes afterward occurring within the district to which each has had reference have given the average percentage of eighty-seven and three-tenths as verified. A comparison of this percentage with average percentages of preceding years exhibits an improvement in accuracy with each succeeding year.

The display of cautionary day and night signals upon the lakes and at the great ports of the United States upon the Atlantic and Gulf coasts has been made systematically on occasions of supposed special danger. Of the total number of cautionary signals thus displayed seventy-six per cent. has been afterward reported as justified.

The exhibition of maps on which the meteoric conditions are shown by symbols at the rooms of the boards of trade, chambers of commerce, and of other commercial associations, and at places of public resort, for the benefit of shipping and other interests; the display of bulletins; the distribution of weather maps, and the employment of other methods for rapidly diffusing information for public use, have been continued as in preceding years.

The river reports, giving the average depth of water in the great rivers of the interior and notice of dangerous changes, for the benefit of river commerce and the population in the vicinity, have been regularly made, telegraphed, bulletined in frames, and published by the press at the river ports and cities.

The telegraphic lines, reaching from Barnegat to Cape May, and from Norfolk to Cape Hatteras, on the most frequented and in some places the most dangerous parts of the cost, have been continued in operation as a part of the Signal Service. In view of the action of Congress, measures have been taken to extend the lines from Hatteras, by

Wilmington, to Smithville, at the mouth of the Cape Fear River. The stations upon these lines are occupied, and the lines are operated by enlisted men.

In pursuance of the acts of Congress approved respectively June 3, 1874, June 23, 1874, and March 3, 1875, authorizing the construction and operation of telegraphic lines in the interior and upon the frontier, connecting military posts, and for the protection of the populations from Indian and other depredations, officers and enlisted men of the Signal Service have been detailed for the construction and operation of the lines, and have entered upon their duties. The work of construction has been in great part done under the general direction of officers of the Signal Service by additional details furnished by department commanders. The lines in Arizona from the Texas frontier and in the Indian Territory, already partly constructed, are approaching completion. Permanent benefit will result from the connection of military posts by telegraph, and will greatly increase the protection of frontier villages upon the lines and the country through which they pass.

The question of the useful pre-announcement of approaching meteoric changes may be considered as determined by now five years' successful service. With each year of labor the paths for improvement open more plainly. What was conjecture becomes certainty. The co-operation of scientific men is assured, both at home and abroad. The success of the past is a sure index to the results of the future.

The Chief Signal-Officer makes an elaborate statement, accompanied by a strong recommendation that the Signal Corps be established to form one of the Bureaus of the War Department. Frequently in private conversation he has urged this course, and from year to year has brought it to the attention of the Department. I have hesitated hitherto to make any recommendation that would increase the number of Bureaus in the Department, but the great extent of the duties now devolving upon this branch of the service, the advantage it has been to the country, the progress that it has made in scientific knowledge, and the great favor with which the results of its efforts have been received by the people of the whole country, commend this recommendation of the Chief Signal-Officer to my attention, for which reasons I am induced to mention it especially at this time.

The officers connected with that corps, with the exception of the Chief Signal-Officer himself, are all commissioned officers of the Army, belonging to regiments of the service—artillery, cavalry, and infantry—whose companies are stationed at different points scattered through the whole country, while they, on account of their fitness for signal-service, are detailed to perform these peculiar duties. Separated as they are from their commands, the companies to which they belong lose their services, and frequent applications hire made by military commanders for the return of these officers to their posts. I shall during this present session present to Congress a plan for the establishment of a Bureau of this

character, which, in my judgment, the results of the past five years have rendered necessary, and which I am sure the people of the country will readily sanction.

The construction of ninety-three new buildings has been authorized during the year, at an estimated cost of $301,278, and an expenditure of $407,551 has been authorized for repairs to buildings, construction and repairs of cisterns, and other works.

Plans for the construction of a new post on the North Fork of the Loupe River, authorized by act of June 16, 1874, to be known as Fort Hartsuff, have been approved; also plans for log-buildings for winter-quarters for troops stationed near Red Cloud and Whetstone Indian agencies, for which Congress appropriated $30,000 by act of June 23, 1874.

The work of care and improvement of national cemeteries has been satisfactorily performed during the year. Inclosing-walls have been completed at nine cemeteries. Eleven still require walls. Four lodges have been completed during the year; thirteen are yet to be built. The amount expended for this and other necessary work during the year was $231,387.25.

Cession of jurisdiction over a large number of cemeteries has not yet been granted by the several States, but application will be made from year to year until such cession is granted. The granite monument at Salisbury, N. C., is nearly finished. Total number of interments in national cemeteries on June 30, 1875, was three hundred and six thousand and fifty-three. The total number of head-stones finished to this date is sixty-three thousand one hundred and twelve. This work is being vigorously prosecuted.

The Quartermaster-General calls attention to the large mass of papers which are stored in the rooms of his Office, which are of no further use, and recommends that the attention of Congress be again called to the subject, and authority requested to destroy such as are not needed, and the storage elsewhere of such as it may be necessary to preserve. He also renews the recommendation that Congress authorize the enlistment of post-quartermaster sergeants, which subject was brought to its attention last session but did not receive final action. I concur with him in these recommendations.

The Commissary-General of Subsistence reports that it will be necessary to purchase supplies for posts on the headwaters of the Missouri River, Fort Pembina, and distant posts in Texas and Arizona, for use in the next fiscal year, and ship the same prior to the 1st of July, 1876, when the appropriation for that fiscal year would, under the general laws governing appropriations, became available for disbursement. To meet this state of affairs, it is recommended that provision be made in the next Army appropriation bill to make immediately available $300,000 of the money to be appropriated for the Subsistence Department, or so much thereof as may be necessary to pay for the purchase, under

direction of the Commissary-General of Subsistence, of supplies for advance shipments to posts on the Upper Missouri River, Fort Pembina, and distant posts in Texas and Arizona; and in this connection I beg that Congress may consider the remarks made in my last annual report upon the inconveniences arising to the public service by reason of the fiscal year commencing on the 1st day of July.

Under the authority conferred by the act of Congress approved February 10, 1875, for the relief of persons from the ravages of grasshoppers, the appropriation was placed under the charge of officers of the Subsistence Department, with instructions for the purchase and issue of food to the sufferers within the respective military departments. During the period when destitution from the cause referred to was greatest, one million nine hundred and fifty-seven thousand one hundred and eight rations were issued to sixty-three thousand five hundred and ninety-three adults and forty-three thousand nine hundred and forty-two children under twelve years of age, residing in the States of Minnesota, Nebraska, Iowa, and Kansas, and the Territories of Dakota and Colorado. Of the sum of $150,000 appropriated by Congress, $132,887.69 was disbursed for the purpose contemplated by the act, and $5,112.31 was returned to the Treasury. A full and detailed report of these issues will hereafter be submitted, in compliance with the act of Congress upon the subject.

The financial condition of the Medical Department of the Army for the year ending June 30, 1875, is fully set forth in the report of the Surgeon-General of the general transactions of his Department for that year.

Yellow fever having become epidemic in Pensacola and vicinity, the garrison at Fort Barrancas, except a small detachment, were removed to Santa Rosa Island, where, however, two cases occurred during 1874. Since the close of the fiscal year yellow fever has again visited Pensacola, and the garrison at Fort Barrancas, although promptly removed to Santa Rosa Island, sustained a loss by death from that cause of twenty-nine out of seventy-four cases of fever; nineteen of those whose cases terminated fatally being among officers and soldiers, the remainder occurring among their families. At Key West, Fla., where the fever was epidemic last summer, the garrison by timely removal escaped contagion.

Besides the current work in registering and classifying the surgical data of the Army, the preparation of the work upon the surgical statistics of the war has steadily progressed, and the results of the year's labor upon this work bear satisfactory testimony to the diligence and fidelity with which it has been conducted.

In connection with the progress of work in the Army Medical Museum, attention is invited to the efforts that have been made in previous years to place its catalogue before the scientific world, where its usefulness would be very great. In two previous reports its publication

was recommended, and at the last session of Congress an appropriation to that end was voted in the House of Representatives and favorably considered in the Senate, but without final action.

Authority having been granted by Congress for the Congressional Printer to print and bind five thousand additional copies of the Medical and Surgical History of the War, the illustrations and composition for the second issue of the first part have been completed, and the press-work and binding will doubtless be finished before the assembling of the next Congress. The progress upon other works in preparation is fully stated in the Surgeon-General's report.

I again call the attention of Congress to the recommendation contained in my last annual report for the enactment of a system of annuities for the families of deceased officers, by voluntary deductions from the monthly pay of those holding commissions in the Army. Certainly if private companies can make money by an annuity system, it is in the power of the Government at least to render itself secure in extending similar beneficent aid. It is proposed that this aid shall be extended through the agency of the Government, without eventual expense to the public Treasury. It is argued that the money to be deducted under the operation of the proposed scheme is worth to the Government a certain percentage of interest. The well-settled principles governing life-insurance would be applicable to this plan, and the annuity-tables would be prepared by the most careful and critical calculations. The science of probabilities has reached great precision in those computations entering into life-insurance, but after certain tables had been used twenty years, more or less, corrections could be made if they were found deficient, which would more perfectly accomplish the object of the scheme, viz, the rendering of substantial assistance to the families of deceased officers of the Army, without actual expense to the Government.

The Paymaster-General's report contains a lengthy statement of the advantages and disadvantages of recent legislation abolishing the mileage system and substituting that of actual expenses therefor. Observation has satisfied those officers of this Department directly charged with the examination of this character of accounts that, while in the aggregate payments on account of actual expenses fall short of what would be the sum of mileage allowances for the same journey, the pecuniary advantages are only apparent and not always real, as the time occupied in the examination of the numerous items of expenditure will alone enter largely into the calculation of how much money is saved to the Government by that system. Mileage charges are easily computed, quickly paid, and readily scrutinized; and mileage allowance, therefore, forms the most convenient system of re-imbursement of traveling expenses. The experience of officers will sustain the statement that, on an average of the whole period of service of one in public life, it is no more than a re-imbursement, and is uniform in its operations upon all. The

Paymaster-General states in his report that the labor to the officer, to the paymaster, to the Pay and the Treasury Departments, in the preparation, payment, and scrutiny of the vouchers for traveling expenses, is a hundred fold more than in the case of mileage vouchers, for the reason that each item has to be specially set forth and separately scrutinized. The statement of items sometimes covers two and even three pages of foolscap, whereas a mileage voucher for the same journey would have involved the consideration and treatment of but a single item of charge. Experience of actual expenses has shown that the authorities have invariably been obliged, sooner or later, to dispense with itemized accounts, and arbitrarily fix a measure of actual expenses on the basis of time or distance, which is practically a mileage system. I have called attention to the foregoing statements on this subject made in the Paymaster-General's report, because I believe that a return to the system of mileage would be both expedient and a more perfect measure of justice to both the officer and the Government than the law now prescribes.

There is a provision attached to the first section of the act of April 20, 1874, making a system of inspection of disbursements made by disbursing officers of the Army obligatory, to the effect that no officer so detailed shall be in any way connected with the department or corps making the disbursement. While it does not seem probable that it was really the intention to prevent chiefs of staff in Washington, or any chief of disbursing branches of the staff in the field, from looking at will into the transactions of his department, the effect of a liberal interpretation of the law would be to destroy vigilance and proper supervision on the part of those in charge of such branches of the staff, and to prevent certain regular inspections by officers detailed for that purpose, which latter was doubtless the purpose of the provision referred to. Therefore it is recommended that Congress take into consideration the propriety of modifying the law in question, in order to prevent injury to the service. Chiefs of the staff corps and chiefs of any branch of the staff in the field, or in the various military departments, should always be *ex officio* inspectors of those officers under their supervision. While it is the desire of the Department that inspections should be made by those belonging to the corps making the disbursements, it is believed that the interest of the service would be best subserved by the exercise of supervision by military commanders over the disbursements of their subordinates.

The works for the defense of our seaboard, under the Engineer Department, have progressed satisfactorily and as rapidly as the means provided would admit. The class of works, adopted in 1869, are heavy earth-batteries, thoroughly protected, and arranged for guns and mortars suitable to resist the attack of the most powerful iron-clads. Already some of the positions selected, particularly in our larger commercial ports, have a large proportion of their gun-positions prepared.

The estimates are for continuing these works, some of them to completion.

The battalion of engineers, under the law of June 16, 1874, reducing the Army, has been limited to two hundred enlisted men. This number, in the opinion of the Chief of Engineers, is too small for the efficient performance of the duties required of them. If war should occur with a maritime power, the want of trained soldiers to plant and operate our torpedo defenses would be seriously felt, and it is submitted whether the needs of this branch of the service may not justify a minimum organization for the battalion of not less than five hundred enlisted men. For the torpedo service alone that number is requisite. The duty requires an intelligence and training which cannot be supplied in an emergency.

The trials with torpedoes have continued, and have confirmed the previous views expressed of the importance of this auxiliary in the defense of our harbors, as well as the certainty that their use in time of war will prevent an enemy's vessels from running past our batteries, and will enable us to hold them under the fire of our artillery.

The fourth section of the last river and harbor act authorizes James B. Eads, with such others as may be associated with him, under certain conditions, to construct such permanent jetties and such auxiliary works as may be necessary to secure and maintain a wide, deep, and permanent channel between the Mississippi River and the Gulf of Mexico, through the South Pass of the river.

All the provisions of the section preliminary to the execution of the work have been carried out. The results of the survey directed by the act to be made by the Coast Survey have been received from the Superintendent of that service, and were supplied to Mr. Eads. An officer of engineers, Maj. C. B. Comstock, has been detailed, whose duty it is, under the law, "to report the depth of water and width of channel secured and maintained from time to time in sail channel, together with such other information" respecting the progress of the improvement, materials used, and character and permanence of the works, as may be necessary to keep Congress fully informed and advised. To enable this officer to make the required surveys and inspections, an annual appropriation is necessary, the estimates for which may be found in the report of the Chief of Engineers, which also contains further information in regard to this work. The amount required for these surveys and examinations during the present fiscal year is $17,000, and as no means for them have as yet been provided, the appropriation of that sum is recommended to be made at the earliest day practicable after the meeting of Congress.

By letter of the 26th of June, Mr. Eads informed me that he commenced on June 14 the construction of works at the bar of the South Pass, and that the provisional works for the construction of the east jetty had already been extended one thousand feet.

The report of Major Comstock upon the progress made by Mr. Eads

up to September 25 will be found in the report of the Chief of Engineers. It gives a clear description of the exact character of the works, their progress, the materials used, and the degree of permanence with which the jetties are being constructed.

In the improvement of the Mississippi River the want of a detailed and accurate survey has long been felt. The need of such a survey is becoming more and more urgent from year to year, as engineering improvements in aid of commerce become necessary. The partial surveys of detached portions of the river which have from time to time been made for special improvements are not sufficient for the discussion of plans for protecting the river against floods—a question which is now of much importance—or for other general engineer improvements, which should be based on detailed maps, exhibiting not only the condition of the river at the time of the survey, but giving the means of discovering future changes. The organization and instruments of the lake survey furnish the means of making the survey of the river accurately and economically, and I recommend that the work be placed in its hands.

The preparation of the report of the geological exploration of the fortieth parallel has been somewhat retarded by the delay in completing the necessary paleontological studies, but the engraving of the geological atlas has been commenced, and the topographical atlas will be completed before the end of the current year, as well as the text of this important work.

The geographical explorations and surveys west of the one-hundredth meridian, under the War Department, have been in progress since my last report. At the beginning of the fiscal year the main divisions of the survey were about leaving Pueblo, Colo., for fields of operations in Southern and Southwestern Colorado, Northern and Northwestern New Mexico, and Northeastern Arizona, where connections were made with the work of former years. At the termination in November and December, 1874, of the season's work in these localities, the parties were disbanded at Pueblo, and a portion of the assistants were engaged in this city in preparing the maps and other results of the survey for publication. The field-work of the present season was divided into two main sections, with the intention of surveying tracts in Colorado and California, and an officer with a special party was detailed to make a preliminary instrumental survey, with a view to a complete examination as to the feasibility of diverting the waters of the river Colorado for the purposes of irrigation, and it is hoped that a report accompanied by estimates of the cost will be received from the officer in charge of the party in time to be transmitted to Congress at the coming session. Two of the six quarto volumes of the reports of the survey which were authorized by Congress are in the hands of the printer, and the others are in an advanced state of preparation. The publication of the topographical and geological atlas-sheets is progressing satisfactorily. The

main objects of this survey are the preparation and dissemination of reliable detailed topographical maps of the interior of the country, and reports as to the resources of the regions surveyed. For the latter purpose, competent scientists in the specialties of geology, mineralogy, paleontology, zoology, and botany accompany the surveying-parties, with little increase of expense in comparison with the amount of information gained by them. The topographical maps, which form an important result of this survey, furnish information useful to the military service and to other branches of the Government, and especially to the immigrants who are rapidly settling the great valleys west of the Mississippi, and the appropriation asked for its continuance is recommended.

There are at nearly all the headquarters of the four military divisions and the nine military departments officers of the Corps of Engineers, whose chief duty it is to collect geographical and other information, and these officers do, by means of their own explorations and surveys, and by collecting the notes, sketches, and maps made by officers and soldiers belonging to the western posts on their scouts and campaigns, add year by year to the knowledge of the interior of the country, which is not only essential to the generals in command of these departments and divisions, but which is useful to the country generally. The maps embodying the information gained in this way, with little cost to the country, are finally published by the Engineer Department; and it will be observed that the Chief of Engineers reports an unusually large number of these maps, and others illustrating the operations of the late war, as printed and published during the last fiscal year. I commend to Congress the appropriation asked for for the surveys by engineer officers attached to the various division and department headquarters, and for the construction and printing of maps by the Engineer Department, for the use of the War Department and the Army, and which to a very great degree stimulate and assist the various enterprises which are fast settling up our interior domain.

The estimates of the Chief of Engineers are submitted separately, as presented by that officer, viz:

Fortifications and other works of defense	$2,044,000
Public buildings and grounds, and Washington Aqueduct	714,474
Surveys	170,000
Engineer depot at Willet's Point, New York	35,000
Office-expenses	34,300
Improvement of rivers and harbors	14,301,100
Total	17,298,874

The Government possesses a number of small arsenals, each of which contains within its limits from ten to fifty buildings, and comprising, in the aggregate, extended walls and fences as inclosures, miles of roads

and sewers, river-walls, and wharves. This property received the greatest care in its selection from enlightened judges of the future needs of the country, and the improvements are of a substantial character, and should be preserved from the ruin and decay which time and wear inflict by more liberal appropriations than have been made for the past few years. The Department should at least, by adequate appropriations, be enabled to give proper care to the preservation of those Government establishments which it is not permitted to dispose of except by legislative sanction.

For several years past I have called attention to the necessity of an increase in the annual appropriation for arming and equipping the militia, and a mere reference to its importance to the interests of the whole country is now made. The annual appropriation of $200,000 was made in 1808, when the population was about eight millions. At the present time, with a population of over forty millions, the amount appropriated is still the same, and it is impossible for this Department to meet all the demands made upon it by the States and Territories. If it be the intention and desire of Congress, as expressed in the act of 1808, to provide "arms and military equipments for the whole body of the militia of the United States," then the necessary means ought to be supplied by largely increasing the annual appropriation. The last official report gives the aggregate strength of the militia of the United States: Organized, eighty-four thousand seven hundred and twenty-four; unorganized, three million seven hundred and one thousand nine hundred and seventy-seven; and there is little doubt that were "arms and military equipments" more freely supplied, the organized force would be largely augmented. The hope is entertained that this may receive the attention of the proper committee of Congress, and that further legislation may be had at its next session.

Congress, at its last session, in "An act making appropriations for sundry civil expenses of the Government for the fiscal year ending June 30, 1876, and for other purposes," provided for an examination into the condition of the United States arsenals east of the Mississippi River, with a view of ascertaining how many could be sold without interfering with the necessities of the military service, together with an estimate of the amount that could be realized from their sale should it be directed by Congress.

The board appointed under this law recommends the immediate sale of Pikesville Arsenal, Maryland, as being badly located, and of insufficient capacity for storage to justify the expenditures necessary to keep it in repair. The Detroit Arsenal having been turned over to the Interior Department for sale, and the Columbus Arsenal transferred to the general recruiting service for depot purposes, the retention of all the remaining arsenals east of the Mississippi River is recommended as essential for the necessities and proper service of the Ordnance Department, unless the plan of concentration proposed by the Board on

Arsenals in 1874 is carried out. That plan consists in the establishment of a grand arsenal of construction in the vicinity of New York City, retaining the Springfield Armory and the Frankford Arsenal as adjuncts for manufacturing purposes; retaining also the Indianapolis Arsenal, Indiana; Kennebec Arsenal, Maine; Fort Monroe Arsenal, Virginia, and Augusta Arsenal, Georgia, as places for storage and repair, and selling the Allegheny, Watervliet, Watertown, and Washington Arsenals as rapidly as circumstances will permit, the proceeds of such sales to be devoted to the purchase of a site and the erection of shops, store-houses, and other works for the grand arsenal. The amount that can probably be realized from the sales will be over three million dollars.

The wisdom and economy of a greater concentration of ordnance manufactories seem to call for no extended argument. The military powers of the world bring together in one grand whole all their resources, that there may result economy and perfect work. The experience of all private enterprises points to concentration as a vital element of success. Proximity to raw material, skilled labor, and cheap transportation can be attained by the plan proposed, and it appeals strongly for legislative consideration and action, because it can be carried out without taking a dollar from the public Treasury. This policy of concentration has been carried out for the Pacific coast at the Benicia Arsenal, and for the Mississippi Valley at the Rock Island Arsenal, and cannot be too highly commended nor too closely followed. With our railroad system of intercommunication, reaching every portion of our broad domain, the distance to any point of our long shore-line or of our vast inland frontier is becoming of less paramount importance in the distribution of war material, and a few well-selected and amply-provided centers of supply can more quickly and economically fulfill all demands than did the many arsenals without rail facilities half a century ago.

The Rock Island Arsenal, in its present uncompleted state, now supplies all the militia of most of the States and Territories drained by the great river and its tributaries, many of the fortresses that guard the coast-line of the Gulf of Mexico, and more than one-half of our Army, now scattered from the Mississippi River to the Rocky Mountains and beyond. When completed and fully equipped as a manufacturing arsenal, its capacity will equal the supplying of all the armies that may be organized in the Mississippi Valley in any war of the greatest magnitude. A visit to this arsenal in October last gave me an opportunity, to some extent, to satisfy myself as to the manner in which the appropriation made therefor had been expended, and as to the progress of the various buildings connected with the establishment. The location of the arsenal is admirable, and as rapid progress as possible has been made toward the completion of a large number of the most necessary buildings. I was very much impressed with the

satisfactory manner with which the improvements had been conducted, and am certain that, with the intelligence and ability given to the work which has been shown by the former and present commanding officers of that arsenal, the result will be of great benefit to the country, and that the magnitude of the undertaking will be fully equaled by the importance of the results to be accomplished.

An estimate has been submitted for the purchase of a site and the erection of a magazine for the storage of gunpowder. The only powder depot for the use of the Department is located at the Saint Louis Arsenal, Missouri, on the large Government reservation a few miles south of Saint Louis, but it is too remote from the Atlantic sea-board to be of service for our wants in the eastern section of the country. Another depot is absolutely indispensable, to be located at some convenient point far away from our large cities and closely-populated neighborhoods, but at a convenient distance from water transportation on the Atlantic coast. At present all our powder-supplies have to be stored in the small magazines at arsenals in dangerous proximity to cities, or in the forts of our harbors, where it is subject to the deteriorating influences of the sea-air. The annual saving to the Government in the preservation of powder at a well-established depot would in a short time repay the original expenditure. The depot should also supply the necessary accommodation for the machinery and other appliances for the manufacture of powder for experiment, and to enable the Department to determine and fix the standard powder for Army uses. The want of a powder-mill for Army purposes has been long felt, and its erection is of prime necessity to the country. The Ordnance Board of 1868, after a careful consideration of the subject, recommended the transfer to one of our arsenals of such machinery as might be available "for experimental purposes, in order to fix the best method of manufacturing gunpowder;" but upon examination the machinery on hand was reported unsuitable for the purpose, and the approved recommendation of the board has remained unacted on to this day.

The entire Army has been supplied with new rifles and carbines, caliber .45, and we have now in store a reserve supply of these arms of twenty-six thousand. At the end of the present fiscal year our reserve supply may reach a total of forty thousand arms of the new model and caliber—about enough, in case of war, to arm one Army corps. Our soldiers should be armed with the best weapon that ingenuity and workmanship can produce, and in our country, where armies are to be improvised, made up on the instant by recruits from the anvil and the plow, the want of military discipline and training should be as much as possible compensated for by the quality of the weapon the soldier is to use. Our arsenals should, therefore, be well stocked at all times with a large reserve supply of the best rifles and carbines.

During the past year the armament for our sea-coast defense has engaged the attention of the Department, and a board of distinguished

ordnance officers has been in session endeavoring to obtain all the data possible with the very meager resources at its command. Its report of December 14, 1874, was sent to Congress by the President in a special message, urging "the absolute necessity for immediate provision by Congress for the procurement of heavy cannon," adding that "the constant appeals for legislation on the armament of fortifications ought no longer be disregarded, if Congress desires in peace to prepare the important material without which future wars must inevitably lead to disaster." An appropriation of $75,000 was all that was obtained from Congress, and the attention of that body to this important subject is urgently recommended, and an appropriation of the money estimated for is strongly pressed upon its consideration.

It is necessary to advert to the subject of patent claims set up against the Department for alleged infringements in the productions at the National Armory and at the several arsenals of construction. The Chief of Ordnance in his report for the year 1873 gave a succinct statement of those claims at that time. The claims on the Springfield rifle date back to the order of the Secretary of War of July 28, 1866, for the conversion of fifty thousand muzzle-loaders to breech-loading arms. The skill and ingenuity of the officers and workmen of the Ordnance Department, brought into active operation previous to that time and continued to the present, have resulted in the production of as perfect a single breech-loading arm as will find its place in modern war. Its mechanism, it is claimed, has touched upon and appropriated in part the best features of several distinct and separate patents, some of which were perfected and re-issued after the work of the Government had begun, and whose owners are now seeking compensation for their use. The methods adopted by some of the claimants of instituting suits in the United States circuit courts against officers of this Department for the alleged infringements is onerous to the officers themselves, and can only result, in the event of the success of the suits, in embarrassing such officers in their private means, whereas the Government is the sole beneficiary in the use of the things which are the subject-matters of litigation. A recent opinion of the Attorney-General has inferentially decided that the executive officers of the Government are not authorized, without the authority of Congress, to settle the judgments for past use rendered in such suits. The officers, therefore, against whom judgments might be rendered would be put to the harassing necessity of securing special legislation for their relief in respect to matters over which they have had little power or control. Legislation is necessary to the protection of the officers of this Department against whom recoveries may be had for infringements of patents in the productions of the armory and arsenals, and provision should be made for the payment out of the public Treasury of judgments recovered against them for acts performed in the line of official duty.

It is believed, however, that where several patents are alleged to

cover a single complex device, each of these patents should be brought under the adjudication of a common tribunal, where the combined wisdom and experience necessary to the disposal of the whole number of cases could be brought to bear on each particular one in detail. If suits on such devices are brought by several parties in widely-separated jurisdictions, there is great liability of undue compensation being awarded to one patentee, and inadequate compensation to another, when the relative importance of the several patents is thereafter taken into account. It is, therefore, a question in the interest of the patentees themselves as well as of public economy, whether some particular forum should not be named wherein claims of the character here referred to should be exclusively brought. I would respectfully submit it to the wisdom of Congress whether jurisdiction ought not to be given to the Court of Claims in all cases of the character here explained when the United States is defendant. I earnestly recommend that some action may be taken at the coming session on this subject.

The reports of the division and departmental commanders, submitted by the General-in-Chief, contain detailed statements of the military topics of interest in their respective commands.

The report of the General of the Army refers to the recent incursions of the reservation Sioux into Northern Nebraska, mostly to steal cattle and horses from farms along the Pacific Railroad and north of it; to the severe and arduous winter campaign against the Kiowa, Cheyenne, and Comanche Indians on the border of the Staked Plains, which resulted in their disarmament and subjection to authority, and to the thieving incursions of Indians and Mexicans upon the exposed border of Texas on the Lower Rio Grande. A campaign against the predatory Indians last referred to is now being vigorously prosecuted. It is believed that the particular bands against whom military operations are being conducted come from Mexico, and, following their usual custom, have, after depredating on the settlements of Northwestern Texas, retreated to the edge of and into the Staked Plains. No decisive result has yet been obtained from these operations.

The report of the commanding general of the Department of Texas contains detailed information concerning the difficulties which have created such excitement on the Lower Rio Grande, where some of the most prominent officers and wealthy merchants of that part of Mexico appear to be regularly engaged in fitting out parties to plunder the stock-ranches on this side of the river. Reports of murder in open daylight of several influential citizens, including United States officials and soldiers, and other dastardly outrages on the part of these vagrant Mexicans, were made to the division commander, who invites attention to the grave character of the invasions, and the importance of prompt and decisive measures on the part of the Government for their suppression. Many of the reports from that locality are probably sensational in character, and are believed to have been instigated by parties

whose personal interests would be subserved by the presence of more troops on the borders of Texas; but many others are of undoubted reliability, and measures have been instituted by the department commander, under orders from superior authority, to preserve the integrity of, and enforce a proper regard for, the territory of the United States.

The commanding general of the Department of the Missouri reports the successful termination of the campaign against the Cheyennes, Arapahoes, Kiowas, Comanches, and other bands of Indians in the Southwest. The Cheyennes, under their principal chief, Stone Calf, surrendered themselves as prisoners of war, restoring the captive children, whose parents had been murdered by them. A remnant of this band, comprising its worst criminals, refused to recognize the authority of their principal chief, and attempted to reach the Sioux country, but were intercepted, and after a stubborn resistance were secured.

With the exception of the Utes, who have been peaceful for the past few years, all the Indians in the Department of the Missouri are now on their reservations.

General Pope recommends the abandonment of the small posts in his department, which are not necessary for the defensive or aggressive duty required of troops, which greatly increase the expense of the military establishment, often result in the positive injury to the discipline and efficiency of the troops themselves. The abandonment of some of them is in contemplation, and will be effected as soon as accommodations at the larger posts can be secured, and the public interests committed to their charge will permit.

The report of the commanding general of the Department of the Platte foreshadows trouble between the miners and the Indians in the region of country known as the "Black Hills," unless something is done to obtain possession of that section for the white miners, who have been strongly attracted there by reports of rich deposits of the precious metals. Under instructions from the Department, the utmost vigilance has been exercised to keep all unauthorized persons from trespassing upon the reservation embracing within its boundaries the Black Hills, with only partial success, though in some instances very stringent measures were resorted to. During the past year earnest efforts have been made to induce the Sioux to relinquish their treaty rights to the territory in question, but without success. While this question remains unsettled the Department will use every exertion to prevent collision between white intruders upon the reservation and the Indians occupying it.

The report of the commanding general of the Division of the Pacific contains quite an elaborate history of the management of Indians within his command from the time their control was placed by the Executive in the hands of the division commander. He details the steps that were taken to compel their return to friendly relations with

the Government and their establishment upon reservations selected with care and good judgment, having reference to the diverse character and habits of the different tribes, their local attachments, and private animosities. He then speaks of the policy of the civilian agents who, on the return of peace, were placed over the Indians, in violating the pledges given to them by the military on the termination of hostilities, and sets forth the disastrous consequences attending such violation.

The report of the commanding general of the Department of Arizona treats mainly of Indian affairs, which the recent hostilities in that section and the requisitions of the Interior Department for troops to aid in carrying into effect the orders and policy of its agents have brought into more prominence in that Territory than in other parts of the country. He speaks with commendation of the good results that have been obtained from the working of the Arizona telegraph-line, which is being extended from Camps Verde and Lowell to Camps Grant, San Carlos, and Apache, and thence into New Mexico. He reports that the increased security to the inhabitants of Arizona resulting from the recent military operations against the Indians has encouraged immigration, and the population of the Territory has largely increased in the past year. The settlers have felt safe to bring in stock, which has been materially augmented during the summer. Miners have felt secure in their pursuits, and consequently many valuable mines, particularly of silver, have been discovered and are now being developed. He thinks that with a few years of peace and with increased facilities of transportation, the Territory will develop into one of the most productive of those yielding the precious metals.

Owing to the determination of miners to the headwaters of the Stikeen River, attracted by the discovery of gold in that portion of Alaska, and to prevent the occurrence of difficulties between them and the Indians, who annually resort there, Fort Wrangle was re-established as a military post August 1, and garrisoned by a company.

The general commanding the Department of Columbia renews his recommendation that the attention of Congress be invited to the present anomalous condition of the Territory of Alaska, which, under recent decisions, is nearly without the jurisdiction of the courts of law. The government—a military officer acting as Indian agent—is better than none, but is reported as irritating to those who consider themselves possessed of the same rights and privileges as citizens of other Territories. Peace can be preserved between Indians and whites by the Army, but that authority itself is called in question by the United States district court. If the Army is to govern the Territory, Congress should clearly establish that fact by appropriate legislation. The commanding general renews a former recommendation that Alaska be attached to Washington Territory as a county, and brought under its civil government, and his facilities for judging of the necessities of that action are such as to give great weight to his opinion.

The report of the commanding general of the Division of the Atlantic calls attention to the steps that have been taken to carry out the provisions of the act of March 30, 1875, relative to the establishment of a national park on the island of Mackinac, Michigan. It is probable that owing to this legislation the capacity of the fort for troops will have to be increased, and another company of infantry stationed there.

The report of the commanding general of the Division of the South refers to the expediency of providing a suitable refuge from yellow-fever for the troops quartered on the north side of the Gulf, and Mount Vernon Barracks is suggested as most suitable for that purpose. The prevalence of epidemic diseases in many localities of the South, where the necessities of the public service demand that troops should be stationed, and the impossibility of so isolating many of the present stations as to prevent contagion among the soldiers, demand that the subject of the establishment of some general rendezvous where those threatened with yellow-fever or other epidemic disease can be temporarily quartered should receive early consideration at the hands of Congress. This subject is also treated of in the report of the commanding general of the Department of the Gulf, and its importance as affecting the hygiene of the Army cannot be overestimated.

The actual expenditures of the War Department for the year ending June 30, 1874, including river and harbor improvements, were	$42,326,314 71
The same for the last fiscal year, ending June 30, 1875, were	41,277,375 28
Showing a reduction of	1,048,939 43
The estimates for the military establishment for the ensuing fiscal year ending June 30, 1877, are	$33,452,396 50
Those for the current fiscal year, ending June 30, 1876, were	32,488,969 50
Being an increase of	963,427 00
The appropriations for that purpose for the current fiscal year were	$28,727,407 99

The excess of the amount of the estimates for the ensuing fiscal year over the appropriation for the current fiscal year arises from the fact that, as experience has shown, the appropriations were not sufficient to meet the demands of the service. The appropriations for the Subsistence and Pay Departments, based as they are on the actual number of men to be paid and subsisted, are notably below the sums actually required. The basis of calculation for the pay and subsistence of the Army must necessarily be that of the maximum number of soldiers and officers allowed by law. This necessity arises from the fact that the Army, although perhaps at one time a few hundred short of its maximum strength, is frequently quite up to its highest standard, the variation depending on the success of recruiting to meet casualties. As the pay and allowances are fixed by law, it is no difficult matter to ascertain the exact amount requisite to meet the obligations of the Gover-

ment to its soldiers; and when the carefully prepared estimates of the Department—based upon calculations that have been reduced, by a knowledge of the fluctuations of the strength of the Army, to an almost mathematical certainty—are materially cut down by Congress, grave embarrassments, such as have recently resulted from the large reduction of the appropriations asked for the fiscal year ending June 30, 1875, must necessarily occur. For the last month of that fiscal year the unexpended balance of appropriation for pay of the Army was only sufficient to give each officer and soldier about one-half of what they were entitled to for June, 1875, so that there remains due upon contract with the Government the amount necessary to give them the remaining one-half month's pay. The Paymaster-General has been instructed to submit a deficiency estimate to meet this want. Had the estimates submitted not been cut down several millions by Congress the appropriations would have sufficed to meet all legal demands upon them, and would have left but little, if any, surplus to be turned into the Treasury as unexpended balances.

By the act of July 15, 1870, the Secretary of War was authorized "to permit one or more trading establishments to be maintained at any military post on the frontier, not in the vicinity of any city or town, when he believes such an establishment is needed for the accommodation of emigrants, freighters, or other citizens. The persons to maintain such establishments shall be appointed by him, and shall be under protection and control as camp-followers." This changes the previous custom, under which the department commander had charge of the appointment of sutlers for military posts. I suggest that a law be passed giving the appointment of sutlers, as heretofore, to department commanders, including in its provisions authority, as it now exists, to the council of administration at each post to regulate the prices of the goods to be sold by the traders, and also authority to the proper military commander to limit the amount to which a soldier shall be trusted by the sutler, that amount to be collected from his monthly pay. A provision of this kind would, I think, be wise, as it would prevent that excess of expenditure which now occurs where there is no supervision exercised.

Good progress has been made during the year in the preparation of the official records of the war of the rebellion, both in the Federal and Confederate branches. I have placed the general supervision of the compilation of these records in the charge of the chief clerk of the Department, who, under my direction, has organized an efficient force of assistants, selected from those clerks who are best acquainted with the arrangement of the official papers on hand and who are well adapted to the work for the purpose by experience with Department and Army records.

In order to facilitate the compilation and historical arrangement of the reports and correspondence, it was found necessary to copy and

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print a few proof-sheets of each document, so that the services of more than one person could be made available upon this part of the work, and also in order that when authentic copies had been printed the danger of loss by accident or fire, &c., might be avoided.

The amount of research and investigation which are required before any perceptible progress appears is very great. Owing to the pressure of affairs during the war, the field-records were kept in a hurried and sometimes crude and careless manner, and when turned in to the Department were often in a chaotic condition, so that the labor of their arrangement, which is now undertaken, is naturally slow and tedious. It is hardly necessary to state that in the compilation no document in the possession of the War Department will be omitted which will throw light upon the events of the late war or be valuable to future history, and I may add, in respect to what shall be included and what not, the order is that it is better to embody too much than too little. I beg here to suggest that the War Department can furnish no more than its own records afford, and that for a complete history the records of almost every other Department will need to be consulted, and to this end the attention of Congress is invited to this part of the subject.

From the immense mass of papers on hand the required documents are being selected, copied, compared, and put to press, at the Department; the proof being carefully read and compared with the original papers, and each document, letter, report, telegram, and paper is being printed separately. Accuracy is absolutely required before these printed copies are placed in the hands of the compiler, whose duty it then is to collate and group the various subjects in order of date and in accordance with their relation to each other. A large mass of material has been collected, copied, and a great portion of it printed, and, as far as practicable, the printing has been done from original documents, when the nature of the records admitted, without recourse to copying by hand. This matter has not yet received its final arrangement and classification, owing to the difficulty of selecting at the same time papers relating to contemporary subjects. The estimate for the continuation of the work for the next fiscal year is fifty thousand dollars.

By virtue of an appropriation of $25,000, made by Congress at its last session for the purchase of what is known as the Brady Collection of War Views, the Department has come into possession of a very large number of negative plates illustrating battle-fields, fortifications, camp scenes, military positions, the topography of sections of country over which many of our most important military operations were conducted, and photographs of most of the Union and many of the confederate officers of prominence during the late war. For purposes of illustration, these, of course, are far more accurate than any map could be made, taken as they were upon the spot, very often immediately before, or subsequent to, the engagements, the scene of which they picture. As this valuable pictorial history of the war is recorded on glass

plates, liable to be utterly destroyed or defaced by accident, the Department has taken measures for securing permanent benefit to the Government from the expenditure of the money appropriated by Congress, by having a few proofs struck off from each plate of importance, and in that way producing a sufficient number of copies of these pictures to secure the views from distruction by any ordinary accident. The attention of Congress is invited to the consideration of the question whether it would not be eminently proper to provide for an edition of these pictures to illustrate the history of the rebellion, the preparation of which is now in progress in this Department. In the present advanced state of the arts a sufficient number of copies of each desirable view could be secured by the heliotype, or other similar process, at a very small cost, compared with the ordinary prices for lithographing. Such illustrations need not supersede, but would supplement, the maps necessary for illustration, and they could be prepared *pari passu* with the compilation of records now in progress.

Information has been received from different sources that many private individual have in their possession important official records, principally of the late confederate government, which they are willing to dispose of for a consideration, but for the purchase of which there are no funds available at the disposal of this Department. Of course these records are properly the property of the Government, but it seems impossible to obtain the information necessary to their recovery through the courts, or otherwise than by purchase. No doubt is entertained but that many of these papers contain data that would enable the Government to detect many fraudulent claims, which could only be proven to be such by the agency of these papers, and it is recommended that Congress, by appropriate legislation, place this Department in a position to recover such as properly belong to its files. As it now is, these confederate records are so incomplete that the result of their compilation will necessarily be very unsatisfactery to all concerned.

The estimates of the Superintendent of the Military Academy, which will be submitted to Congress, have been carefully revised by myself in the interest of economy, and make no demand for appropriations beyond those necessary for the maintenance of the military establishment at West Point save what is found to be necessary for the interests of the service.

The construction of the new cadet hospital has diligently progressed, and if the appropriation asked for it is granted and made available from the date of the passage of the act of appropriation, the hospital will be ready for use next winter.

The system of sewerage inaugurated at West Point has not hitherto been carried out as rapidly as desirable, the efforts in this direction being crippled by the small appropriation heretofore granted. A more

liberal policy in regard to this item would be beneficial to the public interests. These and other estimates are recommended to Congress.

My annual visit to the Military Academy confirmed previous impressions as to the efficacy of the new academic regulations and the steady improvement in discipline of the corps of cadets. It was gratifying to hear the almost universal commendation bestowed upon the first class for proficiency in scholarship as well as in all those subjects necessary to the education of a soldier.

I renew the recommendations made in my last annual report for the establishment of a professorship of rhetoric and English literature. The experience of every year but serves to confirm the expediency of this measure, and to show that sooner or later such a chair will become of absolute necessity. In my opinion, the necessity for it now exists, and that impression is confirmed by the views of the last board of visitors, which has taken strong ground in its favor. The only objection that I can perceive to the establishment of such a branch is that the course of study at the academy, as now arranged, taxes to the utmost the energies and diligence of the cadets, and experience has shown that the plan now pursued is the best that can be devised. Still, I recommend that Congress take into consideration the expediency of uniting the professorships of French and Spanish into a professorship of modern languages, and it is believed that by doing this, and encroaching a little upon other branches, sufficient time for the study of rhetoric and English literature can be obtained without serious derangement of the course as at present arranged. Reference to my reports of previous years, and to those of the board of visitors, show the necessity for this action, and the subject is brought to the consideration of Congress.

During the past year strenuous exertions have been made to bring the corps up to its maximum strength, but the large number of candidates failing to pass the examinations has rendered this action of the Department nugatory. As it is generally conceded by those conversant with the subject that the standard of examination is not too high, it seems evident, from the large number of failures each year, that some defect exists in the elementary instruction of those appointed.

Attention is invited to the report of the board of visitors, hereto attached. The board was afforded every opportunity for investigating the affairs of the academy, was thorough in its examination, and its report contains many recommendations worthy of the consideration of Congress.

On the 24th of February, 1871, the Secretary of War communicated to the Senate of the United States a report made by Lieut. Gustavus C. Doane, Second Regiment of Cavalry, upon the so-called Yellowstone expedition of 1870. This report had been forwarded to the Adjutant-General of the Army by Major-General Hancock, then commanding the Department of Dakota, who deemed its contents worthy of

publication, and was submitted also by General Sherman, the General of the Army, with the recommendation that it be printed, as it contained much that was interesting to those who are studying the resources of our new Territories. I call attention to this expediton and report of Lieutenant Doane at this time for the reason that during the past summer, in company with him and several other officers of the Army, I traveled over a large portion of the region which he has described in this report, which region is embraced in what is now known as the "Yellowstone National Park."

On the 1st of March, 1872, after this report of Lieutenant Doane had been made, an act was passed by Congress dedicating and setting apart as a public park or pleasure-ground for the benefit and enjoyment of the people, a large tract of land in the Territories of Montana and Wyoming lying along the headwaters of the Yellowstone. This includes and embraces that portion of the country alluded to above whose attractive localities and wonderful geysers were first discovered by Lieutenant Doane and the party which accompanied him in 1870.

Under the above-named act of Congress, this park is under the exclusive control of the Secretary of the Interior, but it may not be out of place for me to state in this report that it is the wish and desire of this Department to unite with the Secretary of the Interior in doing what is possible to be done with the limited appropriation at hand for opening and surveying this region, so appropriately called "Wonder-land." At present it cannot be reached except by long and tiresome travel, off from the usual route; but when railroads are built in that direction, and when that region is opened to more prompt communication, it will doubtless be the resort each year of thousands of those who will seek to visit it.

The report of Lieutenant Doane, and the other reports which have since been made, are very full in their descriptions. I satisfied myself while there that with the expenditure of a moderate amount of money roads could be located so that travel through the park might be easy and unimpeded. Should an appropriation be made by Congress looking toward the surveying of interior roads, in order that the inaccessible localities of the park be opened to the public, the War Department could, through its Engineer Corps, with economy and at moderate expense, do much toward accomplishing what is desired, and the roads so made would be important for military uses.

The curiosities of the park are rapidly being destroyed. How they can be preserved is a problem, but they should be saved; and if authority were given to the War Department to make a survey of the routes alluded to, and to station one or two companies of troops in or near the park for the purpose of preventing spoliation, which will otherwise frequently occur, I have no doubt that the result would be satisfactory. Surely everything should be done that can be to protect all that is grand and beautiful in that remarkable region.

The officer designated, in pursuance of the President's order of January 23, 1874, to take charge of the contribution to be made by the War Department at the International Exhibition of 1876, has labored to organize the means within the Department of making a display of our war-materials equal in extent and variety to any similar contribution to like exhibition, in this or foreign countries. Co-operation on the part of the several contributing bureaus has been secured through the medium of officers selected by their respective chiefs, and to whose duties has been superadded that of collecting, arranging, and disposing of the articles and materials designed to be displayed under the direction of the officer referred to. The total expense of making a full and satisfactory exhibit of our war-materials has heretofore been estimated at $200,000. Congress, at the last session, appropriated only $133,000 of this amount, and burdened the appropriation with a *pro-rata* share of the expense of any building that might be erected for the accommodation of the entire Government exhibit. Experience has shown that the amount thus left for the practical exhibit of the War Department is inadequate, and I recommend that Congress supplement the appropriation already made with a further one, granting sufficient to make up the sum of $200,000 for the practical exhibit of the Department. This amount is set down at $89,000, which includes an item of $22,000 as re-imbursement for moneys expended in the erection of the Government building at the Exhibition.

I believe that the Government, in appearing as a voluntary contributor at this Exhibition, international as it is in character, should avoid the mortification of an inconsiderable or discreditable display.

WM. W. BELKNAP,
Secretary of War.

PAPERS

ACCOMPANYING

THE REPORT OF THE SECRETARY OF WAR.

REPORT OF THE GENERAL OF THE ARMY.

HEADQUARTERS OF THE ARMY,
Saint Louis, Mo., November 2, 1875.

SIR: Since the date of my last annual report, October 24, 1874, the following changes have been made, by order of the President, in the boundaries of divisions and departments, viz: The Department of the Gulf was by General Orders No. 1, Headquarters Division of the Missouri, January 4, 1875, (ratified by the President,) added to the Military Division of the Missouri; by General Orders No. 18, War Department, Adjutant-General's Office, March 11, 1875, the Department of the Missouri was extended to the northern boundary of Texas; and by General Orders No. 65, War Department, Adjutant-General's Office, June 22, 1875, the Department of the Platte was extended to include so much of the Territory of Idaho as lies east of a line formed by the western boundary of Utah to the northeastern boundary of Idaho, including the post of Fort Hall. The geographical commands, therefore, consist—

1. Of the Military Division of the Atlantic, commanded by Maj. Gen. W. S. Hancock; headquarters, New York.

2. Of the Military Division of the South, commanded by Maj. Gen. I. McDowell; headquarters, Louisville.

3. The Military Division of the Missouri, Lieut. Gen. P. H. Sheridan; headquarters, Chicago.

4. The Military Division of the Pacific, Maj. Gen. J. M. Schofield; headquarters, San Francisco.

There are no departments in the Division of the Atlantic.

The Division of the South embraces but one department, the division commander exercising a double command.

The Division of the Missouri embraces—

1. Department of Dakota, Bvt. Maj. Gen. A. H. Terry; headquarters, Saint Paul.

2. Department of the Platte, Bvt. Maj. Gen. George Crook; headquarters, Omaha.

3. Department of the Missouri, Bvt. Maj. Gen. John Pope; headquarters, Fort Leavenworth.

4. Department of Texas, Bvt. Maj. Gen. E. O. C. Ord; headquarters, San Antonio; and,

5. Department of the Gulf, Bvt. Maj. Gen. C. C. Augur; headquarters, New Orleans.

The Division of the Pacific embraces—

1. Department of the Columbia, Bvt. Maj. Gen. O. O. Howard; headquarters, Portland, Oreg.

2. Department of California, over which the division commander exercises the authority of department commander; and,

3. Department of Arizona, Bvt. Maj. Gen. A. V. Kautz; headquarters, Prescott.

The tabular statements of the distribution of troops, herewith, gives in detail the post and station of each company, and all I need add to it is that, although the troops are necessarily scattered in small detachments, they are grouped as near as possible by regiments, so as to preserve organization and discipline.

The aggregate strength of the line of the Army, according to the last reports received, is 1,540 officers and 24,031 enlisted men, made up as follows:

	Officers.	*Men.*
5 regiments of artillery	270	2,504
10 regiments of cavalry	422	7,206
25 regiments of infantry	848	11,000
Available recruits, hospital-stewards, ordnance-sergeants, &c		3,321
	1,540	24,031

I inclose herewith the annual reports of the division and department commanders as far as received, with such subreports as seem necessary to a full understanding of the events of the past year, the condition of the troops, and of their supplies.

During the past winter the troops in the Departments of the Missouri and Texas were employed in an arduous and severe winter-campaign against the Kiowa, Cheyenne, and Comanche Indians, on the border of the Staked plains, that have for years been engaged in depredations on the Texas and Kansas frontiers, resulting in their disarmament and subjection to authority. If the military commanders can have control over the supplies needed by these Indians, as they now have over their persons, I am convinced by a recent visit that a condition of peace can be maintained.

The border of Texas on the Lower Rio Grande has also been the scene of incursions by Indians and by Mexicans, mostly engaged in stealing cattle and horses. I invite your attention to the report of General Ord on this subject.

In like manner the Sioux located on their reservation have recently, since the date of General Crook's annual report, made incursions into Northern Nebraska, mostly to steal cattle and horses from farms along the Pacific Railroad and north of it. General Crook is of the opinion that the whole Army, acting defensively, cannot prevent these incursions, and suggests that the troops be stationed in the midst of the Indians, so as to watch and prevent their leaving on the pretense of hunting. This is impracticable, unless the Army can have supervision of the necessary supplies of these tribes within the reservation, which is now not the case. The reports of the several commissions which have, under military escort, recently been engaged in exploring the country and in negotiating with these Indians, will throw much light on this subject.

Generally speaking, the damage to life and property by Indians is believed to be less during the past year than in any former year, and the prospect is that as the country settles up it will be less and less each year, till all the Indians are established on small reservations. But, until they acquire habits of industry in farming or in stock-raising, they will need food from the General Government, because the game on which they have hitherto subsisted has diminished very rapidly.

Inviting your attention to the reports herewith, I am, with respect, your obedient servant,

W. T. SHERMAN,
General.

Hon. W. W. BELKNAP,
Secretary of War, Washington, D. C.

List of inclosures.

1. Tabular statement—distribution of troops.
2. Report of General Hancock, &c.
3. Report of General McDowell, &c.
4. Report of General Sheridan.
   - 4 A. Report of General Terry.
   - 4 B. Report of General Crook, &c.
   - 4 C. Report of General Pope.
   - 4 D. Report of General Ord, &c.
   - 4 E. Report of General Augur, &c.
5. Report of General Schofield, &c.
   - 5 A. Report of General Howard.
   - 5 B. Report of General Kautz.

* * * * * * *

Regiment.	Number of men.	Regiment.	Number of men.
First Cavalry	764	Twentieth Infantry	394
Second Cavalry	780	Twenty-first Infantry	425
Third Cavalry	698	Twenty-second Infantry	§279
Fourth Cavalry	781	Twenty-third Infantry	447
Fifth Cavalry	783	Twenty-fourth Infantry	329
Sixth Cavalry	693	Twenty-fifth Infantry	364
Seventh Cavalry	*656	Engineer Battalion	269
Eighth Cavalry	730	Permanent and recruiting parties, music boys, and recruits not available for assignment	701
Ninth Cavalry	615		
Tenth Cavalry	706		
First Artillery	492	General-service men on duty in the bureaus of the War Department, Army, Division, and Department headquarters, &c	273
Second Artillery	522		
Third Artillery	†504		
Fourth Artillery	537		
Fifth Artillery	449	Ordnance Department	384
First Infantry	526	West Point detachments	227
Second Infantry	462	Signal detachment ‖	455
Third Infantry	414	Hospital stewards	209
Fourth Infantry	535	Ordnance sergeants	115
Fifth Infantry	426	Commissary sergeants	140
Sixth Infantry	535	Indian scouts	169
Seventh Infantry	571	Available recruits at depots	775
Eighth Infantry	478	Prison guard	59
Ninth Infantry	529		
Tenth Infantry	446	Total	24,486
Eleventh Infantry	422	Total September 15, 1875	24,591
Twelfth Infantry	388		
Thirteenth Infantry	466	Loss	105
Fourteenth Infantry	496		
Fifteenth Infantry	‡318	Total September 30, 1875	24,486
Sixteenth Infantry	428	Deduct signal detachment	455
Seventeenth Infantry	470		
Eighteenth Infantry	446	Total less signal detachment	24,031
Nineteenth Infantry	406		

* One hundred and fifty recruits ordered September 13, 1875.
† Ten recruits ordered to Company D September 15, 1875.
‡ One hundred and fifty recruits ordered September 14, 1875.
§ One hundred recruits ordered September 15, 1875.
‖ Not included in the 25,000 authorized by law.

REPORT OF THE ADJUTANT-GENERAL.

Memorandum of annual returns.

1. Table showing the "Organization of the Regular Army," marked A.
2. General return or exhibit of the actual strength of the Regular Army, marked B.
3. Statement of the "position and distribution of troops," as follows:
   Military Division of the Missouri, comprehending the Departments of the Missouri, Dakota, Texas, the Gulf, and the Platte, marked C.
   Military Division of the Atlantic, marked D.

Military Division of the Pacific, comprehending the Departments of California, the Columbia, and Arizona, marked E.

Military Division of the South, marked F.

E. D. TOWNSEND,
Adjutant-General.

ADJUTANT-GENERAL'S OFFICE, *October* 10, 1875.

WAR DEPARTMENT, ADJUTANT-GENERAL'S OFFICE,
Washington, D. C., October 9, 1875.

GENERAL: As a final report, I have the honor to submit the following relative to the completion and closing of the business connected with the "collecting, drilling, and organizing volunteers," and the late Bureau and Office of the Provost-Marshal-General of the United States:

At the instance of the War Department, it was enacted, by the act of March 3, 1873, (sec. 3489 Revised Statutes of the United States,) as follows:

No claims against the United States for collecting, drilling, or organizing volunteers for the war of the rebellion shall be audited or paid unless presented before the thirtieth day of June, eighteen hundred and seventy-four.

The enactment was a wise one, for it may be said that all just claims are now before the Department—$2,940.92 met all for the year ending in 1873; $1,289.28 met all for the year 1874; and $339.15 for the year 1875. If there should prove some occasional exceptions, they can be met by special legislation, provided the examination of the claims by the War Department shall establish their justice.

Since the enactment above mentioned, twenty-four claims have been presented. The amount claimed in eighteen aggregated $8,714.92; in six the amount was not stated.

The present condition of the business connected with collecting, drilling, and organizing the volunteers of the late rebellion, and the late Provost-Marshal-General's Bureau, also the measures and success in closing the work of both, will appear from the following:

Pursuant to the provisions of section 33 of the "Act to increase and fix the military peace establishment of the United States," approved July 28, 1866, the Bureau and Office of the Provost-Marshal-General of the United States were discontinued on the 28th of August, 1866, and, by General Orders No. 66, War Department, Adjutant-General's Office, August 20, 1866, all business relating in any way to the Provost-Marshal-General's Bureau, or the raising of troops, with all the accounts and claims connected therewith, of whatever character or date, or whensoever incurred, were transferred to the Adjutant-General of the Army, to whom all the records, papers, funds, and property were turned over. The Adjutant-General was authorized to retain such officers and clerks as were required, and directed to reduce the force from time to time, as could be done without detriment to the public service. I was assigned, in addition to my other duties, to the "immediate supervision and charge," with instructions to look to the condition of the business in the respective States and Territories, with the view of completing and closing it, and transferring the records to Washington. The transferred business was consolidated into the "enrollment" and "disbursing" branches of the Adjutant-General's Office.

The enrollment branch was charged with answering calls for information from the Second Auditor, Pension-Office, Paymaster-General of the Army, State and local authorities, and all miscellaneous business.

In addition, there was the work of transferring the names of 776,829 drafted men into books especially prepared and arranged by States and districts, so that there might be easy reference for information.

The disbursing branch was charged with all disbursements from the fund for "collecting, drilling, and organizing volunteers," and the "enrollment and draft fund;" also the business relating to all accounts and claims, of whatever character or date, or whensoever incurred, connected with the raising of troops during the war.

The medical branch was duly transferred, by order of the Secretary of War, to the charge of the Surgeon-General of the Army, with the view of complying with the requirements of the act approved July 28, 1866, in regard to the publication of the medical statistics of the Provost-Marshal-General's Bureau.

Offices, each under the direction of a mustering and disbursing officer, were continued at the following places:

State.	Station.	For what States, &c.
Vermont	Brattleboro'	Vermont.
Massachusetts	Boston	Massachusetts, Maine, New Hampshire.
Connecticut	Hartford	Connecticut, Rhode Island.
New York	Albany	New York.
Pennsylvania	Philadelphia	Pennsylvania, New Jersey.
Maryland	Baltimore	Maryland, Delaware.
Ohio	Columbus	Ohio, West Virginia.
Indiana	Indianapolis	Indiana.
Kentucky	Louisville	Kentucky.
Illinois	Springfield	Illinois.
Missouri	Saint Louis	Missouri, Kansas, Dakota, Colorado, and Nebraska.
Iowa	Davenport	Iowa.
Minnesota	Saint Paul	Minnesota.
Wisconsin	Madison	Wisconsin.
Michigan	Detroit	Michigan.
Tennessee	Nashville	Tennessee.
New Mexico	Santa Fé	New Mexico.
California	San Francisco	California, Nevada, Oregon, and Washington Ter.

with a chief or general office in Washington—in all 19.

In addition to the officers in charge, the force of clerks and messengers employed was:

Washington office	46
State offices	87
Total	133

March 19, 1867, the transfer of the records to Washington and the discontinuance of the State offices was commenced. In 1868 the offices were reduced to ten, and in 1869 to two; one in Washington, the other at San Francisco, Cal. The present date finds all the valuable papers and records transferred to the seat of Government, and properly arranged for future reference.

From time to time there was a reduction of the force of employés, and only eight clerks of the general office force are necessary to meet calls for information from the accounting-officers, and from State officers and others, relative to quotas, credits, drafted men and substitutes, deserters, "free or slave status" of colored soldiers, advanced bounty, collecting, drilling, and organizing volunteers, the enrollment and draft, and other subjects kindred to the foregoing. The examination of claims—rejected and suspended for informality, or under administrative action—is constantly pressing, on appeal and application, from claimants who file additional evidence and urge action, thus rendering reference to the records and other labor necessary in order to a proper understanding of the cases.

The excellent system established by the late Provost-Marshal-General of the United States was adhered to closely in closing the financial work. The miscellaneous work was conducted under the general system of the late Bureau, in so far as it was applicable. Thereunder, it may be said that an extensive and most important Bureau has closed itself.

For information relative to the financial portion of the business, I invite attention to the statements herewith, marked A, B, C, D, and E.

The balances in the hands of the chief disbursing officer of the Adjutant-General's Office on June 30, 1875, were as follows:

On account of collecting, drilling, and organizing volunteers	$8,629 07
On account of draft and substitute	18,993 11

The first of which is held to pay claims on account of expenses incurred in collecting, drilling, and organizing volunteers, and presented prior to July 1, 1874; the second, to pay claims incidental to the late Provost-Marshal-General's Bureau, such as re-imbursement to discharged drafted men, under section 2 of the act of February 28, 1867, enrollment-expenses, &c. No payments have been made under section 1 of the act of February 28, 1867, since October, 1869.

I have the honor to remain, general, your obedient servant,

THOMAS M. VINCENT,
Assistant Adjutant-General.

The ADJUTANT-GENERAL OF THE ARMY,
Washington, D. C.

Report of the recruiting service from October 1, 1874, to October 1, 1875.

WAR DEPARTMENT, ADJUTANT-GENERAL'S OFFICE,
Washington, October 4, 1875.

Recruiting was suspended, except in the cases of the Signal Service and non-commissioned officers and other meritorious soldiers who were permitted to enlist and re-enlist at posts where they were serving at time of discharge, until November 20, 1874, when, the Army having been found to be reduced below the limit of 25,000 men, allowed by law, orders were issued to resume the active operations of the recruiting service.

The present standard for recruits, except those for colored regiments and musicians, is 5 feet 4 inches and upwards in height, for artillery and infantry; weight, not less than 120 pounds and not more than 180 pounds; and for cavalry not less than 5 feet 5 inches and not more than 5 feet 10 inches in height, and weight not to exceed 155 pounds.

A very careful system has been observed in the conduct of the recruiting service, under which the chances are greatly reduced for deserters at large to enlist again. By rejecting at the depots numbers of men who have developed bad habits since enlistment, a far better class of men has been sent to regiments. Whereas with an army of 35,000 in the years 1867–'68 the number of deserters reached the enormous amount of over 10,000 in a year, during the year ending June 30, 1875, the Army of 25,000 men lost only 2,521 by the crime of desertion, as against 4,606 for the previous year, ending June 30, 1874.

Under the present system of pay, which gives an increase for faithful service and for re-enlisting, the number of old soldiers who can exhibit good characters on their discharge-certificates, now received again in the ranks, is largely increased.

Arrangements are being perfected for raising to the very highest standard of excellence the discipline at recruiting depots. It has been long known that many of the defects in the Army service were due to the necessity of sending raw recruits, unacquainted with the first principles of drill or subordination, to join companies *in the field*. The urgent calls for recruits to keep up a show of strength on the frontiers has kept the depots drained as fast as detachments of sufficient size could be made up. Thus no time has been allowed for instruction. Various measures which have been taken will, it is believed, to some extent at least, obviate this, and allow of three or four weeks' training at the depot as a preliminary to joining the regiments. It is purposed to keep the depots supplied with officers and enlisted men so highly qualified to instruct recruits that even this short time will be effective.

The recommendation made on several occasions, heretofore, is here repeated, not as a mere make-weight, but because experience has already demonstrated, first, that it is of use; and, second, that its want is severely felt; I mean that authority be given to enlist boys over twelve years of age to learn music, in order to supply field-music to companies. The drum and fife and bugle are used for all the garrison-calls, and duty cannot be systematically performed without them. Lads of seventeen and upwards may have good ears for music, but their muscular development has lost the suppleness necessary to proficiency in learning the use of instruments. Frequent applications are made, but cannot be lawfully granted, to enlist sons of old soldiers, who have hardly any opening to an honest means of livelihood. This class would furnish quite a large proportion of the field-music of the Army. It is believed to be entirely accidental that this provision was legislated against, after having been for many years so successfully used in the Army.

E. D. TOWNSEND,
Adjutant-General.

Statement showing the number of enlistments and re-enlistments in the Regular Army from October 1, 1874, to October 1, 1875; compiled from reports forwarded to this Office by superintendents of the recruiting service, &c.

Regiments, &c.	Number enlisted and re-enlisted.	Regiments, &c.	Number enlisted and re-enlisted.
General service	3,435	Second Infantry	42
Mounted service	1,580	Third Infantry	73
Engineer Battalion	56	Fourth Infantry	36
Ordnance Department	130	Fifth Infantry	97
Military Academy	99	Sixth Infantry	31
Artillery School		Seventh Infantry	56
Signal Corps	120	Eighth Infantry	28
Ordnance sergeants	20	Ninth Infantry	61
Hospital stewards	22	Tenth Infantry	62
Commissary sergeants	11	Eleventh Infantry	21
Indian scouts	492	Twelfth Infantry	35
First Cavalry	72	Thirteenth Infantry	86
Second Cavalry	51	Fourteenth Infantry	85
Third Cavalry	39	Fifteenth Infantry	47
Fourth Cavalry	43	Sixteenth Infantry	77
Fifth Cavalry	31	Seventeenth Infantry	71
Sixth Cavalry	19	Eighteenth Infantry	51
Seventh Cavalry	42	Nineteenth Infantry	40
Eighth Cavalry	31	Twentieth Infantry	81
Ninth Cavalry	38	Twenty-first Infantry	25
Tenth Cavalry	25	Twenty-second Infantry	118
First Artillery	53	Twenty-third Infantry	116
Second Artillery	117	Twenty-fourth Infantry	8
Third Artillery	82	Twenty-fifth Infantry	59
Fourth Artillery	46		
Fifth Artillery	74	Total	8,215
First Infantry	51		

NOTE.—Of the recruits enlisted for general service, 149 were for colored infantry; and of those for mounted service, 209 were for colored cavalry.

WAR DEPARTMENT, ADJUTANT-GENERAL'S OFFICE,
Washington, October 30, 1875.

SIR: I have the honor to submit the report of the governor of the Leavenworth military prison for the portion of the past year during which he has been in charge.

The work of altering the buildings formerly occupied by the quartermaster's depot at Fort Leavenworth, Kans., for a temporary military prison has been steadily progressing. As fast as accommodations have been prepared prisoners have been transferred from the State penitentiaries and the principal military posts. No men who can under the act of July 16, 1862, be lawfully confined for a penitentiary offense in a State institution have been transferred, but only men sentenced for military offenses. This is one part of the plan for isolating the more vicious men to prevent their contaminating those under punishment for comparatively venial offenses. The number collected up to September 30, 1875, aggregated 362. The number in confinement on the date mentioned was 225, discharges having been made from time to time, on expiration of sentence, &c., and reduction by casualty, as seen by the list attached hereto.

Nineteen thousand seven hundred and sixty-six dollars and forty-five cents of the last appropriation for fitting the buildings for a prison was expended in the first quarter of the present fiscal year, leaving a balance of $80,233.55 to continue the work.

No appropriation having been made for material and tools for workshops in which the labor of prisoners could be applied for the maintenance and instruction of the prisoners, they have been employed in various ways, both on the prison-buildings and about the post of Fort Leavenworth. Thus an equal number of enlisted men of the garrison at the post have been relieved from "extra duty," and a number of civilian employés have also been dispensed with.

The following summary of work done by prisoners for three months, commencing July 1, 1875, and the approximate saving to the Government, is an indication of the judicious management of prison affairs in this respect, and justifies the belief that, if appropriations are once made to start workshops, the military prisoner will thereafter, instead of being a total expense to the Government, yield by his own labor a profit nearly if not quite sufficient for his maintenance. During the period named the prisoners have performed 3,754 days' mechanical and 6,860 days' ordinary labor, for which, if soldiers had been employed at an average pay of $14 per month and extra-duty pay of 35 cents per day for mechanical and 20 cents per day for ordinary labor, there is an actual saving of $12,948.90, adding cost of keeping military prisoners at State institutions at an expense averaging 50 cents per day for the same number of days. If civilians had been employed at as low rate as $2 per day for mechanical, and $1 per day for ordinary labor, the expense would have been for labor alone $14,368. That is to say, if the prisoners had not been employed as they were, the Government would have had to pay for the same labor the amounts indicated. In addition to this, the prisoners have cultivated a garden which has yielded surprising fruits, considering the damage by grasshoppers and the lateness of the season when it was commenced.

Taking the provision in the law for the establishment of a military prison (section 1352, page 242, Revised Statutes) which authorizes and directs the Secretary of War to remit *in part* the sentences of such convicts as by obedience, honesty, and industry earn such favor, in connection with the law providing for a deduction of *five days* for each month

of consecutive good conduct, from the terms of sentence of United States prisoners confined in State institutions which have no system of commutation, (section 1, act approved March 3, 1875,) a regulation has been established for an abatement of sentences of men confined at the military prison of five days per month, in conformity therewith.

The measure has produced most excellent fruits in tending to make prisoners more tractable under discipline. Considering all the obstacles to be overcome, and the short time the prison has been in operation, the results so far must be deemed highly satisfactory, and to give promise of realizing the expectations of good to the Army which have been indulged in. The commander of the Military Department of the Missouri, Brevet Major-General Pope, has been mainly instrumental in securing these results. He has, from the first, voluntarily given much attention to the institution, though not strictly within the sphere of his duties; and by judicious management, and a very liberal appropriation of material, implements, and other means from his own department-supplies, has enabled the officers of the prison to employ the prisoners profitably and to keep them under good control. He has also set apart from the reservation ample grounds for the buildings and for garden purposes.

Very respectfully, your obedient servant,

E. D. TOWNSEND,
Adjutant-General.

Hon. W. W. BELKNAP,
Secretary of War.

REPORT OF THE INSPECTOR-GENERAL.

WAR DEPARTMENT, INSPECTOR-GENERAL'S OFFICE,
Washington, D. C., October 11, 1875.

SIR: I have the honor to report that the services performed by the officers of the Inspector-General's Department during the past year have been as follows:

Under the act of Congress approved April 20, 1874, frequent and scrutinizing inspections of the accounts of disbursing-officers of the Army have been made, and the necessity and economy of the expenditures, as well as their conformity with the laws appropriating the money, have been made subjects of critical investigation.

Inclosed herewith are the reports of the inspections made under the law above cited.

My own duties at the War Department have chiefly been confined to the supervision and direction of the affairs of the inspection branch of the service.

Inspectors-General Sacket, Schriver, Davis, and Hardie have been busily occupied during the year in making inspections and special investigations under the orders of the Secretary of War. They have inspected the Division of the Atlantic and the Departments of the Missouri, Texas, and Arizona, and their reports show that they have carefully and searchingly examined the *personnel* and *matériel* of the Army at all the remote and widely dispersed posts, stations, and depots within the limits of their inspections.

Besides these, other minor inspections and investigations have, from time to time, been made by these officers, thus occupying all their time

and involving voluminous reports, which have been made without the expenditure of a dollar for clerical assistance.

The inspectors-general report, as they have done in previous inspections, that the commanders of the departments rendered great assistance to them in the execution of their duties by directing that the most ample facilities should be afforded them to investigate every branch of the service at all the posts and stations within their respective commands. The inspectors' reports also show that the officers generally gladly availed themselves of the opportunity afforded by the inspectors' visits to ask instruction relative to the correct interpretation of doubtful points of law, regulations, and orders, and upon other mooted questions regarding the proper performance of military duties; and it seems to me reasonable to presume that the extended and diversified experience of these officers, both in the staff and line of the Army, eminently qualify them to give suitable answers to questions of this character, as well as sound advice and instruction to young and inexperienced officers. This, besides promoting social harmony, has doubtless tended to produce uniformity in the manner of performing military duty in different departments and localities, and will unquestionably fortify and encourage zealous and competent officers in their action, and thus greatly conduce to the discipline and efficiency of the Army.

The three assistant inspectors-general, Lieut. Cols. R. Jones and A. Baird and Maj. E. H. Ludington, have been attached to the headquarters of the Military Divisions of the Pacific, Missouri, and Atlantic, respectively, and have been engaged in the performance of the duties connected with their offices under the orders of the generals commanding the divisions. They have also, under the orders of the Secretary of War, inspected the accounts of some of the officers disbursing money within the divisions and not subject to the orders of the division-commanders.

The following-named officers are now serving as acting assistant inspectors-general: Lieut. Col. E. S. Otis, Twenty-second Infantry; Lieut. Col. C. Grover, Third Cavalry; Maj. A. W. Evans, Third Cavalry, and Capt. G. B. Russell, Ninth Infantry, and attached, respectively, to the headquarters of the Departments of Dakota, the Platte, Arizona, and the Gulf.

EMPLOYMENT OF SOLDIERS AS SERVANTS.

The inspections made during the past year have shown the necessity for some legislation upon a matter alluded to in my last annual report, and which seems to me of such manifest importance to the best interests of the service, that I venture again to invite your attention to the subject by quoting from that report:

> The employment of servants for officers stationed at remote military posts in the Indian and mining districts of our country is worthy of attention, and seems to demand early legislation. Section 14 of the act of July 15, 1870, makes it "unlawful for any officer to use any enlisted man as a servant in any case whatever." Before this enactment the Army Regulations permitted an officer, when serving with his company, to take a soldier as waiter, (with his consent,) and the soldier thus employed was so reported and mustered, with a view to having his pay and allowances charged to the officer employing him.
>
> Soldiers thus serving were required to be equipped in every respect according to the rules of the service, and to attend reviews, inspections, drills, &c., and many soldiers preferred this service to doing guard and other military duty.
>
> Since the prohibitory enactment, frequent emergencies have occurred where it has been absolutely impossible for officers to hire civilian servants at any price, and they have been driven to the alternative of performing servant's work themselves and neglecting their appropriate duties, or violating the law by using the voluntary labor of soldiers. Even when officers, in their efforts to avoid this, have engaged servants in

the Eastern States and transferred them, at an expense they could illy afford, to their remote stations, in most cases they soon found themselves destitute, as the servants would leave for positions more remunerative than the officers could offer. Moreover, it often occurs that fear prevents civilian servants from accompanying officers ordered to posts or going upon expeditions in the vicinity of hostile Indians.

Besides, many have declined going to places where they were debarred the usual pleasures of civilized life, so that it is seldom that a civilian servant can be induced to remain any great length of time at any of our frontier stations.

It would be a violation of the law if a commissioned officer employed and paid an enlisted man who, with his own consent in the intervals of military duty, performed servant's work for him. The officer must therefore, when he cannot procure the services of a civilian, either feed, groom, and attend to his own horse, cook his own meals, wash his own linen, black his own boots, and perform all other necessary servant's work, which would leave him but little time to attend to the care of his men and other military duties, or he must take upon himself the consequences of violating the law.

If deemed necessary, further arguments might be adduced to prove the expediency and, indeed, necessity, for legislation which will, under certain circumstances and proper regulations, authorize the employment of soldiers as servants by officers, as is now allowed in almost every other army where the necessity is not so urgent as in ours.

Officers serving at comfortable stations within the settlements where servants can be hired at moderate wages are not affected by this law; but it is those who are doing duty in remote localities, performing the rough work of campaigning in the hostile Indian districts, that suffer from it, and complaints of their inability to secure civilian servants are very general.

A repeal of the law before cited would doubtless meet the exigencies of the service at this time, by placing the subject where it formerly was, when no evil was known to result from the working of the system.

LAUNDRESSES.

The law of the 16th March, 1802, in regard to laundresses (which is still in force) says: "Women may be allowed to accompany troops as laundresses, in number not exceeding four to a company;" and the Army Regulations authorize one laundress to every nineteen, or fraction of nineteen, enlisted men.

Under the existing organization our Army is allowed upward of 1,316 laundresses, who are amply compensated for all the work they perform by the enlisted men. Besides, each one draws a daily ration, at an aggregate cost to the Government of over $100,000 per annum. Moreover, quarters and fuel are furnished them, and a large amount of transportation whenever the troops are moved.

It has often been said (and I think with a great deal of truth) that the baggage of four laundresses, with their children, generally amounts to more than that of all the enlisted men of the company; so that I think I am within the scope of reason in estimating the annual expense to the Government of the 1,316 Army laundresses at about $200,000. There is no doubt but that they are a great incumbrance to troops when changing station; and as they and their children cannot be transported with troops serving in the field, they must suffer by being left behind at posts without their husbands, when they would not generally be entitled to quarters, fuel, or rations.

In view of the limited appropriations made by Congress for barracks and quarters during the past three years, it has been found impracticable to furnish comfortable or even habitable quarters for laundresses at many posts, and they and their children have suffered in consequence.

In consideration of the facts above stated, it is believed that a material reduction, if not the entire abolition, of laundresses would be a measure of economy, expediency, and humanity.

As it would certainly be a virtual breach of faith to at once discharge those laundresses whose husbands enlisted upon the condition that their wives were to accompany them and receive the allowances of laundresses, I would respectfully recommend that no more married men be allowed to enlist in time of peace, and that, at the expiration of the terms

of service of those soldiers whose wives are authorized laundresses, they only be re-enlisted in exceptional cases, such as meritorious non-commissioned officers or especially deserving private soldiers. In this manner a reduction of one-half or the whole number of laundresses could be made without injustice to any one.

In the opinion of many experienced line-officers, all the laundresses might with great advantage to the service be dispensed with, and their places supplied by each soldier doing his own washing, or by colored or white men being enlisted and adequately compensated for this especial service, or by details from the troops, which has occasionally been done in our Army, and is the universal practice in almost every European service except the English. Our soldiers are regularly detailed to cook for the companies, and in the field they wash their own clothes; so do miners, surveyors, and explorers, and they do not look upon it as any great hardship.

HISTORICAL POST-RECORD.

It is a singular fact that, aside from the few official items contained in the archives of the War Department, the only information we have of the early history of our old military posts is derived from personal reminiscences or vague tradition.

An officer assigned to the command of a military post finds on his arrival no record showing when, why, or by whom it was established, who have been its commanders, or any other reliable facts in its history. This serious omission ought, in my judgment, to be corrected at once, by requiring a historical-record book to be kept at every military post, under the exclusive charge of its commander, whose duty it should be to enter therein every event of importance occurring within the scope of his command; this book to be turned over by each commander to his successor, and not to be removed from the post unless it is abandoned, and then to be forwarded to the Adjutant-General for file in the War Department. Such a book, properly kept, would afford easily accessible and reliable information regarding the special services of troops and their results. It would also exhibit a catalogue of errors, if any had been committed, which might serve to prevent their recurrence; these, with numerous other items of record, would be important for subsequent reference.

The military significance and value of such a record will be apparent to every experienced officer, and it would not be devoid of interest to those civilians who appreciate the importance of the rapid settlement and development of the resources of the West. A faithful delineation of the stirring events at those frontier posts whose garrisons have furnished the vanguards which confronted and drove back the hordes of hostile savages that opposed the advance of the tidal wave of emigration, enabling it to sweep across the continent with a momentum as irresistible as that of the Gulf Stream, must in the future possess great historic import. Who, for example, would not read with intense interest a properly authenticated narrative of the scenes that transpired in the early history of old Fort Dearborn, which once occupied the ground where the great city of Chicago now stands? And many would be equally interested in an accurate history of Forts Mackinac, Howard, Crawford, Snelling, and other posts that have figured conspicuously in the early settlement of the West. But up to this time no such record has been kept.

TRANSPORTATION.

In an Army like ours, dispersed in small detachments to garrison military posts scattered at wide intervals throughout extensive districts of unpopulated territory, affording but few military supplies, it becomes necessary to transport everything needful from remote furnishing depots to the places of consumption.

This, in sections like Arizona, New Mexico, Montana, Oregon, and other places where there are no railroad or water communications, involves the use of an immense amount of wagon-transportation, which, in passing over arid plains and rough natural roads, is rapidly consumed.

The teamsters, hostlers, herders, &c., for this means of transportation, for the most part, are soldiers detailed from the line, often without any knowledge of the work, and against their wishes; but as the appropriations are inadequate to the employment of citizens, these details are unavoidable.

The soldiers often maltreat, overwork, and take but little care of their teams; the consequence is, that in a short time they require recuperation, or are rendered unfit for further service, and are condemned and sold; whereas, if the law authorized the enlistment of experienced and competent men for this special service, they might be properly disciplined and controlled, and, in my opinion, it would result in a great saving to the Government; moreover, the system would add greatly to efficiency as well as economy in time of war. In the German army this practice prevails, and has been found to work admirably. They have regularly-organized companies and battalions, with officers, noncommissioned officers, and privates, who are taken into the army for the performance of transportation service specially.

BARRACKS AND QUARTERS.

The absence of suitable buildings at most of our sea-coast fortifications has for many years past compelled the troops to take quarters in casemates, which it is believed are without exception damp, illy ventilated, and unhealthy. This has given rise to continued well-grounded complaints, with numerous applications for more salubrious quarters, and these requests have been enforced by our medical officers, who, as a hygienic measure, have urgently recommended the applications to the favorable consideration of the authorities.

As the usual appropriations for barracks and quarters are insufficient to meet the expense of supplying comfortable quarters at all our permanently-garrisoned sea-coast forts, I beg leave to suggest that a special appropriation be solicited of Congress for this object.

TROOPS.

The inspectors-general report that, owing to the limited strength of the garrisons at many of the frontier posts, the constant calls for scouting and escort service, with the heavy details of extra-duty men for building, teaming, and other labor which is necessarily imposed upon the troops, it has been impossible to keep up regular drills or other military exercises; yet discipline has been maintained, and the troops, under the circumstances, have presented a creditable appearance.

Inspector-General Schriver, who has inspected nearly all the recruiting-stations, reports that a much better class of men are enlisting under

our present system of recruitment than heretofore. The enlisted men at the posts are better quartered and more comfortable and contented than they were a few years since. The great reduction in the percentage of desertions and the increased number of re-enlistments during the past year conclusively show this.

The records of the Adjutant-General's Office exhibit the following gratifying results for the past year, as compared with those of the previous year:

During the fiscal year ending June 30, 1874, the desertions were 4,606; re-enlistments, 699; re-enlistments of sergeants, 149. During the fiscal year ending June 30, 1875, the desertions were 2,520; re-enlistments, 1,986; re-enlistments of sergeants, 347. From which it will be seen that the number of desertions in 1874 was nearly double that of 1875, and the number of men re-enlisted in 1874 only about one-third that of 1875.

The troops have generally been paid regularly during the year, and there is no doubt but that the practical operation of the act of May 15, 1872, requiring paymasters to receive the savings of the soldiers, which the Government holds itself liable for to the depositors at the expiration of their terms of enlistment, and which can only be forfeited by desertion, has tended to make the soldier more frugal and contented, and prevented him from squandering his pay in useless or improper indulgencies.

The records of the Pay Department show the aggregate of the soldiers' deposits with paymasters during the past fiscal year to have been $325,255.80. As these accumulations continue to increase desertions will doubtless correspondingly diminish.

The annual reports of the inspectors-general for the past year embody the results of zealous labor, careful observation, and searching investigation. Aside from the matters I have before alluded to, they contain much important information and many valuable suggestions in regard to the present condition of military affairs in our Army, with recommendations for modifications and changes in certain details of the service—all of which are conclusions drawn from matured experience—and I most respectfully commend them to your favorable consideration.

Respectfully submitted.

R. B. MARCY,
Inspector-General.

The Honorable the SECRETARY OF WAR.

REPORT OF THE JUDGE-ADVOCATE-GENERAL.

WAR DEPARTMENT, BUREAU OF MILITARY JUSTICE,
October 1, 1875.

GENERAL: In compliance with instructions contained in circular from the Adjutant-General's Office, under date of September 3, 1875, I have the honor to submit for the examination and consideration of the Secretary of War the following statement of the operations of this Bureau since the date of my last annual report of October 1, 1874:

Number of general court-martial records received, reviewed, and registered, 1,759.

Number of garrison and regimental court-martial records received, reviewed, and registered, 9,712.

Numbers of special reports made upon court-martial proceedings, and application for remission of sentences, and miscellaneous questions of law, &c., 1,125.

Abstracts of proceedings of trials furnished upon official application of the War and Treasury Departments, 2,213.

Copies of records furnished under the one hundred and fourteenth article of war, (pages,) 5,079.

The decrease in the number of trials by court-martial occurring during the past, as compared with the previous, year, affords gratifying evidence of a marked improvement in the *morale* of the service.

Notwithstanding the policy which discourages, with limited exceptions, the enlistment of married men, a large number of them succeed, by fraudulent misrepresentations, in entering the Army. Their presence there proves often a source of embarrassment to military discipline, as it is of injury to their families. The destitution of the latter leads to desertions, and is then urged upon the Executive as grounds for the extension of clemency to this class of offenders. The conviction is entertained that this growing evil might, in large degree, be corrected by appropriate legislation. Under existing regulations, except in cases of re-enlistment, the soldier on enlisting makes a solemn declaration that he has "neither wife nor child;" and it is believed that a law requiring him to verify such declaration by oath, and prescribing a severe punishment for this oath when falsely taken, would do much towards the repression of what has come to be a chronic demoralization, followed by deplorable results, alike to the service and to the families thus abandonded by their heads and natural protectors.

It affords me pleasure to bear testimony to the zeal and uniform fidelity with which the officers and employés of this Bureau and the members of the corps of judge-advocates have performed their respective duties during the past year.

Very respectfully, your obedient servant,

J. HOLT,
Judge-Advocate-General.

Brig. Gen. E. D. TOWNSEND,
Adjutant-General, U. S. A.

REPORT OF THE QUARTERMASTER-GENERAL.

WAR DEPARTMENT,
QUARTERMASTER GENERAL'S OFFICE,
Washington, D. C., October 9, 1875.

SIR: I have the honor to forward herewith a report, in duplicate, of the operations of the Quartermaster's Department for the fiscal year ending June 30, 1875.

I am, very respectfully, your obedient servant,

RUFUS INGALLS,
Acting Quartermaster-General, Brt. Major-General, U. S. A.

The ADJUTANT GENERAL, UNITED STATES ARMY.

QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., October 9, 1875.

SIR: I have the honor to submit the annual report of operations of the Quartermaster's Department during the fiscal year ending June 30, 1875:

On July 1, 1874, the balance on account of appropriations for years prior to July 1, 1870, remaining to the credit of the Quartermaster's Department in the Treasury, undrawn, was by report of last year		$920,981 52
Amount placed to the credit of appropriations during the year by deposits of funds for redistribution, and of amounts received from sales to officers of public property purchased prior to July 1, 1870		20,028 98
Amount expended for other Departments and refunded by them during the year		37,154 34
Total		978,164 84
Requisitions on settlements made at the Treasury of claims and accounts	$18,381 27	
Amount carried to credit of the surplus fund, act of Congress March 3, 1874	820,981 52	
		839,362 79
Balance in the Treasury July 1, 1875		138,802 05

Appropriation for the fiscal year ending June 30, 1871.

Balance in the Treasury July 1, 1874		389,130 20
Amount placed to the credit of appropriations during the year by deposits of funds for redistribution, and of amounts derived from sales to officers of public property purchased during the year ending June 30, 1871		4,508 57
Amount expended for other Departments during the fiscal year ending June 30, 1871, and refunded by them during the last fiscal year		8 45
Total		393,647 22
Requisitions on settlements made at the Treasury of claims and accounts	$2,824 85	
Amount carried to the credit of the surplus fund under act of March 3, 1874	389,130 20	
		391,955 05
Balance in the Treasury July 1, 1875		1,692 17

Appropriations for the fiscal year ending June 30, 1871, and prior years.

Amount re-appropriated by act of Congress approved March 3, 1875		222,683 29
Requisitions on settlements made at the Treasury of claims and accounts		222,636 98
Balance in the Treasury July 1, 1875		46 31

Appropriations for the fiscal year ending June 30, 1872.

Balance in the Treasury July 1, 1874		967,434 65
Amount re-appropriated by act of Congress approved March 3, 1875		55,374 27
Amounts placed to the credit of appropriations during the year by deposits of funds for redistribution, and of amounts derived from sales to officers of public property purchased during the year ending June 30, 1872		4,988 01
Amount expended for other Departments during the fiscal year ending June 30, 1872, and refunded by them during the last fiscal year		122 70
Total		1,027,919 63
Requisitions on settlements made at the Treasury of claims and accounts	$78,593 33	
Amount carried to the credit of the surplus fund, act of March 3, 1874	119,214 18	
		197,807 51
Balance in the Treasury July 1, 1875		830,112 12

Appropriations for the fiscal year ending June 30, 1873.

Balance in the Treasury July 1, 1874		$756,882 11
Amount placed to the credit of appropriations during the year by deposits of funds for redistribution, and amounts derived from sales to officers of public property purchased during the year ending June 30, 1873		30,149 26
Amount expended for other Departments during the fiscal year ending June 30, 1873, and refunded by them during the last fiscal year		3,440 26
Total		790,471 63
Remitted to disbursing officers during the year on requests of the Quartermaster-General	$62,987 72	
Requisitions on settlements made at the Treasury of claims and accounts	259,579 88	
		322,567 60
Balance in the Treasury July 1, 1875		467,904 03

Appropriations for the fiscal year ending June 30, 1874.

Balance in the Treasury July 1, 1874		2,467,739 44
Appropriation for building at San Antonio, Tex., act of March 3, 1873		100,000 00
Appropriation for deficiencies, act of March 3, 1875		20,000 00
Requests for requisitions issued prior to and canceled within the year		50
Amount placed to the credit of appropriations during the year by deposits of funds for redistribution, and amounts derived from sales to officers of public property purchased during the year ending June 30, 1874		337,561 62
Amount expended for other Departments and refunded by them during the year		756 11
Total		2,926,057 67
Remitted to officers for disbursement on requests of the Quartermaster-General	$482,777 50	
Requisitions on settlements made at the Treasury of claims and accounts	445,629 18	
		928,406 68
Balance in the Treasury July 1, 1875		1,997,650 99

Appropriations for the fiscal year ending June 30, 1875.

Appropriations for the fiscal year		13,000,000 00
Amount placed to the credit of the appropriations during the year by deposits of funds for redistribution, and amounts derived from sales to officers of public property purchased		78,214 92
Amounts expended for other Departments and refunded by them		854 44
Total		13,079,069 36
Remitted to disbursing-officers during the year on requests of the Quartermaster-General	$12,313,537 03	
Requisitions on settlements made at the Treasury of claims and accounts	93,146 23	
		12,406,683 26
Balance in the Treasury July 1, 1875		672,386 10

The balances of appropriations undrawn by the Quartermaster's Department July 1, 1875, were as follows:

Appropriations.	For what fiscal years.							Total.
	Prior to July 1, 1870.	1871 and prior years.	1870–'71.	1871–'72.	1872–'73.	1873–'74.	1874–'75.	
Regular supplies	$37,560 23		$516 93	$90,852 94	$79,439 63	$189,010 26	$67,683 81	$465,063 80
Incidental expenses	1,106 26		24 68	126,024 16	20,972 79	20,725 72	69,366 60	238,220 21
Purchase of cavalry and artillery horses	4,709 83	$46 31		120 00	54,824 24	45,191 92	5,167 46	110,059 76
Barracks and quarters	43 41		141 38	62 25	43,797 11	25,289 53	2,358 06	71,691 44
Transportation of the Army	93,038 83		24 89	610,847 05	66,738 11	766,832 76	494,056 46	2,031,538 10
Transportation of officers' baggage	97 66		167 90					265 56
Clothing of the Army	2,245 83		816 39	2,205 72	1,305 04	17,275 76	23,114 85	47,053 59
Appropriation for stoves					142 82			142 82
National cemeteries					150,012 75		5,638 86	155,651 61
Hospitals					31,401 47	13,505 58		44,907 05
Expenses of sales					9,180 07			9,180 07
Headstones for soldiers' graves						864,960 83		864,960 83
Monument at Salisbury, N. C					10,000 00			10,000 00
Telegraph from San Diego, Cal., to Prescott, Ariz						4,858 93		4,858 93
Military bridge across the North Platte River							5,000 00	5,000 00
Depot buildings, &c., at San Antonio, Tex						50,000 00		50,000 00
Total	138,802 05	46 31	1,692 17	830,112 12	467,904 03	1,997,650 99	672,386 10	4,108,593 77

The accounts and vouchers which have been examined in this Office since the last annual report show approved disbursements, as follows:

Appropriations.	For what fiscal year.					Total.
	1871 and prior years.	1871–'72.	1872–'73.	1873–'74.	1874–'75.	
Regular supplies	$67,103 83	$2,944 87	$7,548 88	$778,152 29	$3,438,946 02	4,294,695 89
Incidental expenses	5,891 55	4,601 67	149,641 15	246,243 99	757,008 23	1,163,386 59
Purchase of cavalry and artillery horses	13,726 50	.....	26 50	244,729 44	196,475 35	454,939 79
Barracks and quarters	58,133 58	3,308 67	23,964 64	375,811 21	955,364 25	1,416,582 35
Transportation of the Army	113,951 05	72,792 07	102,683 69	1,361,717 56	2,168,701 93	3,819,846 30
Clothing of the Army	241 29	160 09	632 08	122,623 95	922,483 37	1,046,140 78
National cemeteries	.....	6,253 42	46,207 78	97,905 73	108,886 28	259,253 21
Hospitals	.....	.....	474 55	34,977 18	60,064 62	95,516 35
Headstones for soldiers' graves	.....	.....	12,317 75	77,409 75	9,818 69	99,546 19
Fire-proof building at Jeffersonville, Ind	.....	.....	650 00	41 50	166 71	858 21
Construction of military telegraph	.....	.....	.....	27,512 68	.....	27,512 68
Army contingencies	.....	.....	.....	3,058 73	.....	3,058 73
Post on Loupe River	.....	.....	.....	.....	29,558 46	29,558 46
Military prison at Leavenworth, Kans	.....	.....	.....	.....	18,892 82	18,892 82
Preservation of clothing	.....	.....	.....	.....	8,866 84	8,866 84
Bridge across Platte River	.....	.....	.....	.....	7,089 45	7,089 45
Grasshopper sufferers	.....	.....	.....	.....	559 11	559 11
Repair of arsenal, Charleston, S. C	.....	.....	.....	.....	274 53	274 53
Mississippi River sufferers	.....	.....	.....	.....	42 00	42 00
Transportation of insane volunteers	.....	.....	.....	.....	1 20	1 20
Total	259,047 80	90,060 79	344,147 02	3,370,184 01	8,683,181 86	12,746,621 48

The limited amount appropriated for the service of the Quartermaster's Department for the fiscal year ending June 30, 1875, made it necessary to enforce a rigid economy in expenditures, and the officers of the Department were required to keep expenses within the limits of the appropriations. Allotments from some of the appropriations were made to divisions, departments, and depots, by means of which the expenditures were kept within the amounts appropriated.

Three thousand three hundred and fifty-six money-accounts were received during the fiscal year, and 478 were on hand July 1, 1874. Of these, 3,261 were examined and disposed of during the year, and 573 remained unexamined June 30, 1875. Two thousand nine hundred and sixty-nine property-returns were examined during the year, and 748 were undisposed of June 30, 1875.

Much embarrassment to the military service is caused by the law which compels officers of the Quartermaster's Department to keep separate accounts with each appropriation on account of which they disburse money. The system complicates the accounts, and increases expenses for clerical labor, and liability to errors. Officers of the department are unanimous in recommending a repeal of the law, the evils of which are well shown in the report of the Committee of the House of Representatives on Expenditures in the War Department, (House Report No. 87, Forty-second Congress, third session.)

Very little complaint has reached this Office of the clothing issued to the troops. The Department has endeavored to supply everything equal to the standard adopted, and it is believed that in this respect it has been successful.

A few complaints from posts in Texas and Kansas that the brass screws in boots and shoes penetrated the inner soles, hurting the feet of the wearer, led to an investigation of the cause. Twenty-seven pairs of

boots and 120 pairs of shoes were found to be thus defective, caused by the threads upon the screws being imperfectly cut. A sufficient number of perfect boots and shoes were furnished by the contractor to replace the defective ones.

The campaign hats adopted for the Army have not been received with favor, and measures are being taken to procure suitable ones for adoption in their stead.

Through the courtesy of Sir Edward Thornton, British Minister, samples of the cork helmet worn by the troops of Great Britain during their campaigns in hot climates were obtained, and the purchase of one hundred, with puggarees, for trial by troops in Arizona, has been authorized by the War Department.

New standards have been adopted for sky-blue kersey, dark-blue cloth drawers, forage-caps, wall-tents, scrubbing-brushes, and for materials for lining and trimming clothing.

Under the acts of January 21, 1873, and June 18, 1874, clothing to the value of $184,041.10 has been issued to the National Home for Disabled Volunteers. The value of the clothing authorized by the abovementioned acts to be issued to the Home is $251,031.85, and the amount remaining due is $66,990.75.

The appropriation of $30,000, made by Congress for the fiscal year ending June 30, 1875, was all expended during the year for labor in applying the process of George A. Cowles & Co. No portion of the appropriation was expended for the use of the right to apply any patent process for preservation of clothing and equipage.

Many of the most disinterested and intelligent officers of the Army have given their opinions in favor of the Cowles & Co.'s process for the preservation of clothing and equipage from moth and mildew. The proceedings of two boards of officers of high rank, detailed to investigate the subject, have been approved by the War Department. These boards, at interval of two years, gave very positive testimony of experts, and, after a careful personal examination, unanimous opinions favorable to the economy of the process. The almost entire disappearance of moths from our store-houses at Schuylkill and Jeffersonville is attributable, it is believed, to the mixture. It was proved to be very efficacious with canvas. There is a large quantity of plain canvas and tents on hand.

The Attorney-General has recently given an opinion that it would be lawful to pay for the labor in the application of the preservative, &c.; and therefore it will not be necessary to ask for a special appropriation.

For fuller particulars relative to the supply of clothing, camp and garrison equipage, I have the honor to refer to the report and accompanying statements of the officer in charge of that branch of the business in the Office, which accompanies this report.

There have been 2,956 animals purchased during the year, costing $390,896.54, as follows: 1,023 mules, average cost $134.31; 18 team-horses, average cost $193.06; 1,915 cavalry and artillery horses, average cost $130.56.

Two thousand five hundred and twenty-six animals were sold during the year, for which the sum of $70,901.58 was received, and deposited in the Treasury of the United States to the credit of miscellaneous receipts.

The issue of fuel, forage, and straw during the year has been, wood, 134,609 cords; anthracite coal, 19,910 tons; bituminous coal, 18,502 tons; corn, 681,477 bushels; oats, 873,665 bushels; barley, 162,979

bushels; bran, 38,225 bushels; hay, 44,317 tons; fodder, 405 tons, and straw, 2,362 tons.

The cost of forage was much increased by the ravages of grasshoppers and drought in certain localities, which consequently increased the expenditure on account of this class of supply, and necessitated the reduction of the forage ration slightly in order to keep within the appropriation.

There were filed in the Office during the year 590 contracts. Of these 259 were for forage, viz: 45,602,874 pounds of corn; 18,614,807 pounds of oats; 4,610,623 pounds of barley; 258,280 pounds of bran; 69,487,182 pounds of hay; 15 for 4,605,717 pounds of straw; 92 for 109,632 cords of wood; 18 for 46,893,587 pounds of coal; 15 for 25,750 bushels of charcoal; 63 for fuel, forage and straw, in such quantities as may be required; 49 for transportation; 14 for clothing, camp and garrison equipage; 10 for national cemeteries; 3 for horses; 11 for wagon parts; 1 for construction of a bridge; 1 for ambulances; 6 for buildings; 2 for stationery; 3 for steam-launches; 2 for harness; 4 for miscellaneous services; and 22 leases.

It was found necessary to promulgate, by an order, extracts from the laws regulating the making of contracts for the information of officers, as it was observed that contracts and leases were being made by officers serving in the department in violation of laws. (See General Orders No. 57, War Department, Adjutant-General's Office, 1875, copy herewith.)

The army wagons in store at the beginning of the fiscal year were sufficient to meet the demand made upon the Department during the year, and none were purchased. The number remaining in store at the close of the year was so small that it will be necessary to replenish the stock without delay. To this end inquiries have been made since the close of the fiscal year with a view to the establishment of a wagon manufactory at one of the principal depots of the Quartermaster's Department, and the reports thus far received are favorable to the establishment of such a manufactory as a measure of economy. It is thought that this Department can construct wagons better adapted for army use, and which, in the end, will be cheaper than those purchased from manufacturers. It is believed that the Ordnance Department has a large quantity of timber suitable for the manufacture of wagons, which could be transferred to this Department at reasonable cost.

Upon the recommendation of the Quartermaster-General, a board of officers was convened by the Secretary of War, to decide upon the pattern and prepare specifications for the ambulance for army use. As yet no determination has been reached by the War Department as to the pattern to be adopted.

The stock of harness in store being exhausted, measures were taken during the year to provide a new supply. Officers of the Quartermaster's Department, and those of the line serving as Acting Assistant-Quartermasters, were called upon in November, 1874, to express their views as to any modifications or changes deemed advantageous in the specifications for army harness, which had continued to govern since 1861, in order that the new supply might be provided of the most desirable pattern. In reply, various suggestions were made by officers, and in order that the subject might be fully and carefully considered, a board, consisting of three experienced officers of the Quartermaster's Department, was, upon the request of the Quartermaster-General, convened by the Secretary of War to prepare a set of specifications for

army-wagon harness. The reports received from officers and such other information as this Office possessed were transmitted to the board.

The specifications prepared by the board were approved by the Secretary of War, with a few changes recommended by this Office. Copies of the specifications for harness will be found with the report of Major M. I. Ludington, herewith.

Contract has been entered into for the manufacture of 500 sets of six-mule wagon harness, at a cost of $66 per set.

Trials of iron-hubbed wheels have continued during the year, and the reports thus far received are favorable to their adoption in preference to the wooden hub. Several of the different patterns of iron hubs are on trial, but no definite conclusion has been reached as to those most suitable for army trains.

The adoption of some general pattern of cooking and heating stoves and ranges, to meet the wants of the Army, becoming apparent, a board of officers was ordered to be convened by the War Department at Omaha, Nebr., on the 15th of May, 1875, to prepare and submit to the Secretary of War specifications for stoves and ranges for use of the Army. The board was also directed to prepare a supply-table of the number of stoves to be provided for use of officers and of enlisted men occupying public quarters and barracks. The board had not reported at the close of the fiscal year.

Seven hundred and sixty-five of the Johnson hand force-pumps, for use as fire extinguishers, have been supplied to posts during the year.

Measures have been taken to have the Quartermaster's Department represented at the Centennial exhibition at Philadelphia in 1876, by a display of sample articles of supply.

Reports thus far received show the transportation during the year by rail, water, wagon, and stage to have been 47,260 persons, 9,975 animals, and 191,857,169 pounds of material.

The larger movements of troops during the year were as follows:

Four companies of the Seventh Cavalry, from the Department of Dakota to the Department of the Gulf, and return.

Seven companies of the Twenty-second Infantry, from the Military Division of the Atlantic to the Department of the Gulf, and return.

The Thirteenth Infantry, from the Department of the Platte to the Department of the Gulf.

Seven companies of the Fifth Cavalry, from the Department of Arizona to the Department of the Missouri. The remaining companies were *en route* at the close of the year.

Six companies of the Sixth Cavalry, from the Department of the Missouri to the Department of Arizona. The remaining companies were *en route* at the close of the year.

The interchange of stations of the Fifth and Sixth Cavalry Regiments was accomplished by marching the troops through Colorado, New Mexico, and Arizona, resulting in a saving to the appropriations for this Department.

The movement by railroad during the year is reported to have been 30,944 persons, 8,456 animals, and 101,606,393 pounds of material, costing $624,261.74.

There have been transported for this Department by the Union Pacific Railroad, 5,103 persons, 1,744 animals, and 20,458,199 pounds of freight.

By the Central Pacific Railroad, 957 persons, 228 animals, and 2,008,804 pounds of freight.

By the Kansas Pacific Railroad, 1,155 persons, 495 animals, and 4,387 624 pounds of freight.

By the Sioux City and Pacific Railroad, 275 persons, 55 animals, and 1,420,560 pounds of freight.

Total transportation over these roads, 7,490 persons, 2,522 animals, and 28,275,187 pounds of freight.

The accounts for service over the Pacific Railroads have not all been rendered to this Office. The total amount, so far as received, is $263,893.11.

The total estimated amount of these accounts for services of the Pacific Railroads, based on the monthly average of accounts already received and those of the preceding year, is $553,423.56.

Under the provisions of the act of March 3, 1873, which directs that no payments shall be made to these roads, the Union Pacific and Central Pacific Railrad Companies have brought suit in the Court of Claims to recover one-half their earnings since the passage of the act.

In the case of the Union Pacific Railroad Company, the court, on the 31st May, 1875, rendered judgment in favor of the company, but it is understood that the case has been appealed by the United States to the Supreme Court.

No judgment has yet, to the knowledge of this Office, been rendered by the Court of Claims in the case of the Central Pacific Railroad Company.

Payment for military transportation over the Pacific Railroads is still withheld under the law of 3d March, 1873.

The total earnings of the Pacific Railroads from the date when the roads were first opened to the end of the fiscal year, for military transportation, is shown by the records of this Office to have been as follows:

Union Pacific Railroad	$4,284,655 15
Central Pacific Railroad	577,378 40
Kansas Pacific Railroad	1,977,098 53
Sioux City and Pacific Railroad	16,013 09
Total	6,855,145 17

In pursuance of the act of March 3, 1875, officers of the Quartermaster's Department are instructed by General Orders No. 62, War Department, Adjutant-General's Office, May 24, 1875, (copy herewith,) to make no payments to any railroad company for transportation of any property or troops of the United States over any of the railroads named in the table of land-grant railroads published in General Orders No. 107, War Department, Adjutant-General's Office, of 1874, with the exception of the following-named railroads, which, under the decision of the Second Comptroller of the Treasury, are excepted from the provisions of the act, viz: The Atlantic and Pacific; the Denver and Pacific; the New Orleans, Baton Rouge and Vicksburgh; the Northern Pacific; the Oregon Central; the St. Joseph and Denver City; the Southern Pacific of California, main line; the Southern Pacific of California, branch line; the Texas Pacific; and the Utah Central.

Full payments are made to the above-named roads for military transportation.

Under provisions of the law, the Lake Superior and Mississippi Railroad Company brought suit in the Court of Claims to recover for amount withheld from them under the law, and on 31st May, 1875, judgment was rendered dismissing the suit. It is understood that the case has been appealed to the Supreme Court.

In a similar suit, brought by the Atchison, Topeka and Santa Fé Railroad Company, in the Court of Claims, judgment has not yet been rendered.

The debt to be collected by the Quartermaster's Department from indebted railroads was, July 1, 1874, $1,897,397.03. During the fiscal year ending June 30, 1875, interest accrued upon this indebtedness and expenses incurred to the amount of $112,653.44, and payment in cash and by military transportation and postal services were made and credited to the respective companies to the amount of $40,231.69.

On July 1, 1875, there remained an indebtedness of $1,959,449.03 to be collected by the Quartermaster's Department, which does not include the amounts reported unpaid by the East Tennessee and Georgia, the East Tennessee and Virginia, the Knoxville and Kentucky, and the Nashville and Decatur Railroad Companies, in amount $2,697,049.68, compromised for $1,273,000.

There was placed on the books of this Office to the credit of the East Tennessee and Georgia, the Nashville and Chattanooga, and the Nashville and Decatur Railroad Companies, in accordance with the terms of compromise and settlement under the act of March 3, 1871, the sums of $9.34, $8,403.57, and $4,377.76, respectively—total $12,790.67—for military transportation performed prior to dates of compromises. These credits do not affect the sums due under the compromises above referred to.

A full and complete statement of the status of the railroads indebted to the United States for railroad material, &c., will be found in the report herewith of the officer in charge of that branch of the business in this Office.

There were transported by wagon during the year 41,994,408 pounds of military stores, and by stage 2,540 passengers and 11,526 pounds of freight.

The amount reported as paid for wagon-transportation was $945,159.69; of stage-transportation, $73,185.03.

Thirty-seven contracts were made for wagon-transportation during the year.

Thirteen thousand seven hundred and eighty-five persons; 1,519 animals, and 48,244,842 pounds of material have been transported by water during the year, at a cost, so far as reported, of $616,423.61.

One propeller, one schooner, one sloop-yacht, and seven steam-launches, owned by the Department, have been in service during the year, at a cost of $37,300.16.

The sum of $20,568.06 has been paid for services of vessels, by charter or otherwise, during the year.

Three steam-launches have been purchased during the year and put in service: one, the Hamilton, at Fort Hamilton, New York Harbor; the Thayer, between the city of Boston and forts in that harbor; and the Barrancas, at Fort Barrancas, Florida. The cost of the three launches was $20,750.

During the year accounts for transportation-service in previous years have been received at this Office and referred to the accounting-officers of the Treasury for settlement, as follows:

For railroad-service	$286,521 74
For water-transportation	74,327 53
For wagon-transportation	10,206 48
For stage-transportation	136 00
For miscellaneous transportation, claims, tolls, United States military railroads, &c	16,189 97
Total	387,381 72

During the year the construction of ninety-three new buildings has been authorized, at an estimated cost of $301,278.

Authority has been given for the construction and repair of wharves and bulk-heads to the amount of $56,000, only a small portion of which has actually been expended for the purpose.

The expenditure of $407,551 has been authorized for repairs and alterations of public buildings, and for the construction and repair of cisterns, purchase of tools, &c.

The act of Congress approved June 16, 1874, appropriates $50,000 for the construction of a new post on the north fork of the Loupe River, in Nebraska. August 8, 1874, the Secretary of War approved plans for the construction of the building. The post is known as Fort Hartsuff.

The sum of $30,000 was appropriated by the act of Congress approved June 23, 1874, for the erection of winter-quarters for troops stationed near the Red Cloud and Whetstone Indian agencies, and the Secretary of War approved plans for log buildings at each post.

In April, 1875, the Secretary of War authorized the establishment of a new post at Standing Rock agency, Dakota, and the sum of $11,700 was authorized for the construction of log quarters for two companies thereat.

In April, 1875, the construction of two new six-company posts was authorized in Texas: one at McClellan's Creek, latitude 35° 15′, longitude 100°, two hundred miles west-northwest of Sill, at a cost of $70,000; and one at Beaver Creek, north of the Big Wichita, latitude 33° 45′, longitude 99° 40′, at a cost of $80,000.

Forty thousand dollars was allotted from the appropriation for the fiscal year for work at each post, and that sum remitted for the post on McClellan's Creek. Subsequently the site of the new post at Beaver was changed, and the post located at the north fork of the Canadian River, at Cheyenne agency, Indian Territory, for construction of which $20,000 was deemed sufficient. Timber being found in abundance at McClellan's Creek, it was decided that $40,000 was sufficient for construction of that post.

The following is a statement of the amounts authorized during the year for the construction of new posts and construction and repair of buildings, &c., and how distributed:

Department of the South	$60,270
Department of the Platte	136,550
Department of Dakota	72,973
Department of Texas	178,625
Department of the Columbia	8,467
Department of the Missouri	121,269
Department of Arizona	75,102
Department of California	99,037
Department of the Gulf	16,126
Department of the East	238,110
Total	1,006,529

Of this sum, $142,865 was withheld until the new appropriation became available, and a portion of the repairs authorized, it is believed, were not executed for want of funds.

Construction, repairs, and alterations of military hospitals have been authorized by the Secretary of War during the year, absorbing the whole amount of the appropriation, $100,000.

The act of Congress approved March 3, 1873, appropriated $100,000 for construction of depot-buildings at San Antonio, Tex. The city authorities had previously deeded to the United States, free of expense, suitable grounds therefor, which deed had been reported valid by the Department of Justice. By direction of the Secretary of War, no action

was taken during the fiscal year 1873–'74 relative to the construction of the building.

The act of Congress approved March 3, 1875, continued and rendered available for the purpose originally intended the appropriation made by act of March 3, 1873, and on the 6th of May, 1875, the Secretary of War directed that the money be expended for the purpose named, and preparations for the work were immediately commenced.

It is expected that the improvement of the surroundings of the Jeffersonville depot, as designed by Mr. Fred. Law Olmsted, will soon be completed.

By the act approved June 23, 1874, Congress appropriated $25,000 for alterations of certain stone buildings at Leavenworth, Kans., for a military prison. It was determined that the work should be done under the direction of the depot quartermaster at Leavenworth, and that the labor should be performed by the prisoners, as far as practicable.

The act approved March 3, 1875, appropriates $100,000 for alterations, &c., of three stone buildings at Leavenworth for prison purposes, provided the amount appropriated shall be so expended as to complete the work. This Office has not, at this date, been advised of the contemplated action.

In the department of Arizona, building in *pisé* is highly spoken of by the commanding officer and by Inspector-General Hardee, who has been on a tour of inspection in that department. But it is not thought to be of advantage in building in sections of the country where frost and frequent rains occur.

The use of black building-paper in the construction of temporary buildings has been abandoned, its inflammable qualities rendering it extremely dangerous, and a building-paper containing no tar, petroleum, or other very inflammable material has been authorized to be used in its stead.

During the year, the sale of ten buildings of various dimensions has been authorized.

The Secretary of War, in August, 1874, directed that when the garrison should be withdrawn from Camp Bowie, Arizona, the Government buildings there should be left in charge of agents of the Indian Bureau, to be used in connection with the Indian agency, subject to repossession when required by the War Department.

By the act approved March 3, 1875, Congress authorized the purchase of three sites of military posts in Texas, and appropriated money therefor, viz:

Fort Brown	$25,000
Fort Duncan	10,000
Ringgold Barracks	10,000

The act provides "that before the payment of the money hereby appropriated, good titles shall be made to the United States for such land as contemplated by said act and said report, and no more than the amount appropriated shall be paid for such sites."

The same act authorized the Secretary of War to accept for the United States, and free of expense to the same, a conveyance of the site of Fort McIntosh. The site, containing 208 acres, was conveyed to the United States by the mayor of Laredo, September 13, 1874.

During the year, the War Department authorized the abandonment of Camps Wright and Gaston, California, and Grand River agency, Dakota Territory.

Erection and repair of fences, repairs to walks and head-boards, and other improvements have been made at the following post-cemeteries during the year: Fort Brooke, Fla.; Fort Lyon, Colo.; Fort Saint

Philip, La.; Fort Hays, Kans.; Fort Wallace, Kans.; Fort Abraham Lincoln, Dak.; and Camp Supply, Ind. T.

Purchase of a site for a cemetery at Fort Bliss, Tex., containing one hundred and fifty-three thousand four hundred square feet of ground, at a cost of $200, was authorized, and a satisfactory title has been secured.

Five fires have been reported during the year, viz:

August, 15, 1874, a building occupied as officers' quarters at Camp Halleck, Nev., was destroyed.

October 17, 1874, a set of laundress' quarters at Camp Bidwell, Cal., were destroyed.

January 4, 1875, twelve sets of officers' quarters at Fort D. A. Russell, Wyo., were destroyed.

January 22, 1875, eleven stables at Fort Leavenworth, Kans., were destroyed.

April 30, 1875, the quartermaster and commissary store-house at Fort Canby, Wash., was destroyed.

A hurricane, on the morning of August 28, 1874, injured the public buildings, docks, sea-wall, and dikes at Fort Pulaski, Ga., and the island was flooded to the depth of 3½ feet.

All the Government buildings at Brazos Santiago were destroyed by storm on the 3d, 4th, and 5th September, 1874. Soldiers and citizens were saved only after the greatest suffering and exposure. The light-house was also destroyed. The storm extended to Fort Brown, and several minor buildings were destroyed, and all the buildings at the post more or less injured.

Two reservations have been declared by the President during the year, viz: Carlin, Nev., November 9, 1874, and April 7, 1875, and Fort Hartsuff, Nebr., September 16, 1874.

The reservation at Camp Date Creek, and portions of the reservation at Fort Yuma and Fort Whipple, Ariz., were transferred to the custody of the Interior Department on December 7, 1874.

General Orders No. 56, War Department, Adjutant-General's Office, April 30, 1875, directs the Quartermaster's Department to provide in all permanent barracks a box or locker 24 inches in length, 12 inches in breadth, and 10 inches in height, for each soldier to store his dress uniform and extra clothing; the boxes to be permanent fixtures of the barracks. They are being supplied upon the requisition of the proper officers.

The following is a statement of the accounts and claims for transportation-service on file in this Office during the year:

Suspended and awaiting action July 1, 1874, 310, amounting to		$731,265 52
Accounts received during the year, 654, amounting to		670,773 14
Claims received during the year, 199, amounting to		386,946 92
Total on hand and received, 1,163, amounting to		1,788,985 58
Accounts referred for settlement during the year, 563, amounting to	$625,798 23	
Claims referred for settlement during the year, 94, amounting to	217,443 39	
Transferred to other branches of the Office, 11, amounting to	3,635 15	
Rejected, 154, amounting to	197,224 06	
Suspended, 123, amounting to	183,082 54	
Total acted on, 945, amounting to		1,227,183 37
Awaiting action July 1, 1875, 218, amounting to		561,802 21

The following is a statement of the claims presented to this Office under the act of July 4, 1864:

On hand July 1, 1874, suspended or awaiting action, 12,544, amounting to		$9,240,764 85
Received during the year, 2,044, amounting to		2,345,315 22
Total on hand and received, 14,588, amounting to		11,586,080 07
Approved for payment during the year, 403, amounting to	$188,581 63	
Reduction on claims approved	352,882 33	
Rejected, 871, amounting to	1,314,460 29	
Total acted on during the year, 1,274, amounting to		1,855,924 25
Remaining on hand at the close of the year, suspended or awaiting action, 13,314, amounting to		9,730,155 82

The following is a statement of the miscellaneous claims and accounts on hand and filed in this Office during the year:

On hand July 1, 1874, suspended or awaiting action, 14,444, amounting to		$7,477,997 66
Claims received during the year, 1,317, amounting to		607,160 95
Accounts received during the year, 1,503, amounting to		93,129 73
Total claims and accounts, 17,264, amounting to		8,178,288 34
Claims approved for payment during the year, 620, amounting to	$130,705 09	
Reductions on claims approved	68,761 44	
Rejected, 390, amounting to	458,776 25	
Referred to other Departments, 1,139, amounting to	351,181 39	
Accounts approved for payment during the year, 2,282, amounting to	108,207 46	
Reductions on accounts approved	585 37	
Rejected, 10, amounting to	1,835 25	
Referred to other Departments, 8, amounting to	485 00	
Total acted on during the year, 4,449, amounting to		1,120,537 25
Accounts and claims on hand at close of the year, suspended or awaiting action, 12,815, amounting to		7,057,751 09

The work of care and improvement at the various national cemeteries has been satisfactorily performed during the year.

Walls have been completed at Fredericksburg, Fort Harrison, and Culpeper, Va.; Salisbury, Raleigh, and New Berne, N. C.; Port Hudson, La.; Fayetteville, Ark., and Vicksburg, Miss., national cemeteries. The iron railing around the Mound City Cemetery, to which reference was made in last year's report, has also been erected.

Lodges have been completed at Fort Leavenworth and Fort Scott, Kans., and Wilmington, N. C. A new lodge at the Chattanooga Cemetery has also been finished since the close of the fiscal year.

Contracts for the following have recently been let:

Inclosing-walls around Glendale and Seven Pines, Va., and Wilmington, N. C., Cemeteries.

Superintendents' lodges at Camp Nelson, Lebanon, and Logan's Cross Roads, Ky., Pittsburg Landing, Tenn., and Little Rock, Ark. A new lodge at the latter cemetery was rendered necessary, owing to the destruction of the old building by fire on the night of the 20th of January last.

New lodges are still required for the following cemeteries: Chalmette, Alexandria, Port Hudson, and Baton Rouge, La.; Andersonville, Ga.; Fort Donelson, Tenn.; Beverly, N. J.; Fort McPherson, Nebr.; Grafton, W. Va.; Fort Gibson, Ind. T.; Cave Hill, Ky.; Salisbury, N. C., and Santa Fé, N. Mex.

Walls have yet to be built at the following: Alexandria and Baton Rouge, La.; Andersonville, Ga.; Fort McPherson, Nebr.; Beaufort and Florence, S. C.; Poplar Grove and Yorktown, Va.; Brownsville, Tex.; Grafton, W. Va.; and Fort Gibson, Ind. T.

The system of allotting a proper proportion of the appropriation to each cemetery has led to good results, and will be continued.

This Office has estimated for the sum of $250,000 for the national cemeteries for the ensuing fiscal year; and if this sum be appropriated, it is confidently expected that, in addition to the ordinary maintenance of the cemeteries, all of these walls and lodges can be built with that sum.

The expenditures for the past fiscal year amount to $231,387.25, for the erection of walls, lodges, and other necessary expenses. This amount includes disbursements from appropriations both for the last and former fiscal years. A statement of these expenditures accompanies the report of the officer in charge.

Titles have been obtained to all national cemeteries, with the exception of Ball's Bluff, Va., Cemetery. The Hon. Thomas Swann, of Maryland, has intimated his intention of giving to the United States a deed of the land occupied by that cemetery free of cost.

Efforts have been made to obtain titles to all the lots in the Philadelphia cemeteries in which United States soldiers have been interred. There are seven of these lots for which the United States has valid deeds. For another the cemetery company has, it is understood, expressed its willingness to convey to the United States without charge the soldiers' lot in their cemetery, but as yet the deed has not been received. The price asked by the remaining two companies for the lots in their respective cemeteries is over $4,000, and it is not, therefore, deemed advisable to make the purchase. The Department of course continues to take care of the graves.

Cession of jurisdiction over a large number of the national cemeteries has not yet been granted by the several States. Renewed application was made in each case last winter, but in only a few instances was the desired legislation obtained.

The legislature of the State of Missouri declined to cede jurisdiction over the national cemeteries in that State. This case was submitted to the honorable the Attorney-General, who decided that, when the Government owns land situated within the limits of a State, but over which it has not acquired jurisdiction from the State, it has, over such land, no local jurisdiction whatever. Application, however, will again be made to the Missouri legislature at its next session, and to the other State legislatures which have not ceded jurisdiction over the lands in question; and this course it is proposed to pursue from year to year until such cession is granted.

The United States cemetery near the city of Mexico has been well cared for during the year under the immediate charge of the consul-general, Dr. Julius A. Skilton, and is now reported to be in admirable condition.

On the 29th of December last a contract was entered into with Mr. Alexander McDonald for the erection of a granite monument at the Salisbury National Cemetery, for the sum of $9,500; the parties to whom the work was first awarded having failed to enter into contract. Some few modifications have been made in the original design, tending, it is believed, to improve the appearance of the monument, which is now nearly finished. The contract provides for its erection by the 31st of December next.

The total number of interments in the national cemeteries on the 30th day of June, 1875, was 306,053, classified as follows:

	Known.	Unknown.	Total.
Commissioned officers	1,923	245	2,168
United States soldiers and sailors, white	139,187	120,953	260,140
United States soldiers and sailors, colored	13,219	18,125	31,344
Civilians	6,835	1,530	8,365
Rebel soldiers and sailors	3,283	753	4,036
Total	164,447	141,606	306,053

The number of head-stones furnished up to this date is 26,610 slabs and 36,502 blocks.

From the report of the officer in charge of the office in this city, it will be seen that the erection of the head-stones and blocks provided for by the act of June 10, 1872, is now being vigorously prosecuted, and as rapidly as the magnitude and extent of the operations would seem to warrant.

On the recommendation of the Quartermaster-General, instructions were issued by the War Department, in August, 1874, for the preparation of plans and estimates for the construction of permanent buildings at sea-coast forts, with a view of submitting them, under the act of March 3, 1859, (11 Statutes, p. 432,) to Congress for requisite authority and appropriation.

Plans having been prepared for the construction of buildings at sea-coast forts in the Military Division of the Atlantic, I had the honor to submit to the Secretary of War, on 24th August, 1875, a special estimate of appropriation for $500,000 for commencing the work at Fort Adams, R. I., Fort McHenry, Md., and Fort Monroe, Va.

The buildings at the permanent posts on the sea-coast are old and dilapidated, and many of them untenantable. The annual cost of keeping them in repair is very great. Economy, as well as the health of the garrison, demand that better and more permanent structures be provided. At many of these fortifications the officers and soldiers are occupying casemates, a purpose for which they are not well designed, particularly in a sanitary point of view. They are damp and unhealthy, and the source of much expense to the United States in causing disease and discomfort.

It is now generally conceded that buildings should be erected outside the forts, to be occupied in time of peace, and it is hoped that Congress will provide the sum asked for.

On 19th November, 1874, the Quartermaster-General reported to the Secretary of War that the rooms of the Quartermaster-General's Office were burdened with a large mass of papers which are seldom, if ever, referred to, and which are of no further use, and recommending that Congress be requested to pass a law authorizing the destruction of such papers as are of no further use, and the transfer, for safe-keeping, to the fire-proof store-house at the Philadelphia depot of the Quartermaster's Department, of such papers as it may be necessary to preserve. Congress having taken no final action at the last session, I earnestly recommend that attention be again called to the subject at the next session.

By the act of Congress approved March 3, 1875, the number of officers in the Quartermaster's Department was fixed as follows: 1 Quartermaster-General; 4 Assistant Quartermasters-General; 8 Deputy Quartermasters-General; 14 Quartermasters; 30 Assistant Quartermasters. The same act provided that no more appointments shall be made in the

grade of Military Store-keeper, and that this grade shall cease to exist as soon as the same becomes vacant by death, resignation, or otherwise, of the present incumbents.

A list of the stations and addresses of officers of the Quartermaster's Department, on 1st July, 1875, accompanies this report.

In addition to the officers of the regular establishment, there have been on duty during the year as acting assistant quartermasters 358 officers of the line.

An allowance of $10 per month, in addition to the pay of line-officers serving as Acting Assistant Quartermasters, has been recommended in previous annual reports of the Quartermaster-General, and Congress was asked at the last session to authorize such additional compensation. I have the honor to renew the recommendation, believing that such an allowance would be only a just remuneration to those officers upon whom these duties are imposed. In the case of Acting Assistant Commissaries of Subsistence, the law authorizes this allowance.

The enlistment of post-quartermaster-sergeants, to have care of property and assist officers of the line detailed as acting assistant quartermasters at frontier posts, has heretofore been recommended by this Office. The matter was brought to the attention of Congress at its last session, but did not receive final action.

The services of such enlisted men would be valuable in protecting the Department from loss, frequently occasioned by transfers of garrisons and changes of officers. It is almost the unanimous opinion of officers serving in the Department that such a system should be inaugurated; and I respectfully recommend that the subject be again brought to the attention of Congress.

The enlistment of wagon-masters and teamsters in the Quartermaster's Department, to have the charge and care of its teams and trains, under proper officers, is a subject to which the attention of the Secretary of War is respectfully invited.

Such a system would result in a benefit to the service, both in point of economy and efficiency; and I respectfully recommend that Congress be asked to authorize it by the passage of a law similar to that enacted August 3, 1861, (12 Statutes, chapter 42, section 3,) which has become inoperative, it not being incorporated in the Revised Statutes. It is believed that in time of peace such a system could be successfully inaugurated, and thus form a nucleus of an organization which would be of value in time of war.

On 1st June, 1875, in accordance with Special Orders No. 104, War Department, A. G. O., May 28, 1875, I assumed the duties of Acting Quartermaster-General, during the absence of Bvt. Maj. Gen. M. C. Meigs, the Quartermaster-General, who was by the same order assigned to special duty, under instructions from the Secretary of War, to inspect and report upon the organizations of foreign armies, making the staff department a special subject of his investigation, particularly the quartermaster's department. His report of the results of his observations will be looked for with great interest, and, it is believed, will be valuable to the Department which he represents, and to the Army generally.

During the year the business of the Office pertaining to the examination and settlement of officers' accounts, distribution of funds to disbursing-officers, and the supply of clothing, camp and garrison equipage, has been in charge of Lieut. Col. J. D. Bingham, deputy quartermaster-general; and that pertaining to regular supplies, transportation, barracks and quarters, and claims, has been in charge of Maj. M. I. Ludington, quartermaster. The reports of both of these officers accompany this report.

I also forward the report of Capt. A. F. Rockwell, assistant quartermaster, on duty in this city, in charge of business connected with national cemeteries.

Respectfully submitted.

RUFUS INGALLS,
Acting Quartermaster-General, Brt. Maj. Gen. U. S. A.

The honorable the SECRETARY OF WAR.

List of papers accompanying the annual report of the Quartermaster-General for the fiscal year ending June 30, 1875.

I.—Report of Lieut. Col. J. D. Bingham, deputy quartermaster-general, United States Army, of the inspection-branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1875.

A.—Report of officers on duty in the Quartermaster's Department during the fiscal year.

B.—Report of the stations and duties of officers of the Quartermaster's Department, July 1, 1875.

C.—List of line-officers on duty as acting assistant quartermasters, and of the stations at which they have served, during the fiscal year.

II.—Report of Lieut. Col. J. D. Bingham, deputy quartermaster-general, United States Army, of the finance-branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1875.

A.—Statement of amounts estimated for from the appropriations for the fiscal year.

B.—Statement of amounts remitted from the appropriations from the fiscal year.

III.—Report of Lieut. Col. J. D. Bingham, deputy quartermaster-general, United States Army, of the operations of the accounts-branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1875.

A.—Statement of amounts disbursed by officers of the Quartermaster's Department during and on account of the appropriations for the fiscal year ending June 30, 1875.

IV.—Report of Lieut. Col. J. D. Bingham, deputy quartermaster-general, United States Army, of the operations of the clothing-branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1875.

A.—Statement showing quantity of clothing, camp and garrison equipage, manufactured, purchased, issued, sold, lost, &c., during the fiscal year, and quantity remaining on hand for the supply of the Army on June 30, 1875.

B.—Statement of expenditures on account of clothing and equipage during the fiscal year.

C.—Statement of expenditures on account of preservation of clothing, equipage, and materials from moth and mildew during the fiscal year.

D.—Statement of amounts received from the sale of surplus serviceable, unserviceable, damaged, and irregular articles of clothing, &c., sold at the principal clothing-depots; also of the amounts derived from sales to officers during the fiscal year.

E.—Statement of amounts received and expended on account of clothing, camp and garrison equipage, during the fiscal year.

F.—Statement of the quantity of old-pattern clothing on hand on the 30th June, 1875, and which, under the act of June 16, 1874, is to be issued to the Army.

G.—Statement of clothing issued to destitute persons on the western frontier under act of February 10, 1875, during the fiscal year.

H.—Statement of the quantity of clothing ordered to be issued to the National Home for Disabled Volunteers, under acts of January 21, 1873, and June 18, 1874, during the fiscal year.

I.—Statement of number of claims received and acted upon on account of clothing and equipage during the fiscal year.

K.—Statement of returns of clothing, camp and garrison equipage, received, examined, and transmitted to the Treasury Department, and of letters received and written, during the fiscal year.

L.—Statement of the clerical force employed in the clothing and equipage branch during the fiscal year.

V.—Report of Maj. M. I. Ludington, quartermaster, United States Army, of the operations of the regular supplies, transportation, and barracks and quarters and claims branches of the Quartermaster-General's Office during the fiscal year ending June 30, 1875.

A.—Statement of the indebtedness of southern railroad companies for railway-material for the fiscal year.

B.—Specification for six-mule harness.
C.—Specification for four-mule harness.
D.—Statement of all troops and stores transported under direction of the Quartermaster's Department during the fiscal year.
E.—Abstract of contracts made by officers of the Quartermaster's Department for wagon-transportation during the fiscal year.
F.—Abstract of contracts made by officers of the Quartermaster's Department for water-transportation during the fiscal year.
G.—Statement of vessels chartered and employed by officers of the Quartermaster's Department during the fiscal year.
H.—Statement of vessels owned or purchased by the Quartermaster's Department during the fiscal year.
VI.—Report of Capt. A. F. Rockwell, assistant quartermaster, United States Army, of the operations of the cemeterial branch of the Quartermaster-General's Office during the fiscal year ending June 30, 1875.
A.—Statement of disbursements on account of national cemeteries during the fiscal year.
VII.—General Orders No. 57, War Department, Adjutant-General's Office, May 10, 1875.
VIII.—General Orders No. 62, War Department, Adjutant-General's Office, May 24, 1875.

REPORT OF THE COMMISSARY-GENERAL OF SUBSISTENCE.

WAR DEPARTMENT,
OFFICE COMMISSARY-GENERAL OF SUBSISTENCE,
Washington, D. C., October 9, 1875.

SIR: I have the honor to submit the following report of the operations of the Subsistence Department for the past year.

The amounts appropriated for subsistence of the Army for the fiscal year ending June 30, 1875, were as follows:

By the Army-appropriation act of June 16, 1874	$2,409,000 00
By the deficiency-appropriation act of March 3, 1875	150,000 00
Total	2,559,000 00

At the close of business on the 30th of June the following amounts were on hand:

In the hands of officers	$69,044 34
In the Treasury	73 55
Total	69,117 89

The balance remaining on hand at the end of the fiscal year will be little more than sufficient to pay off the indebtedness outstanding at that date.

The subsistence supplies for the Army have been generally purchased by the officers of the Subsistence Department, under the orders of the Commissary-General of Subsistence, he acting under the direction of the Secretary of War.

Supplies are purchased as near the point of consumption as a due regard to economy will allow; the first cost of the stores, the cost of transportation, wastage and deterioration while in transit, and the quality, all being elements considered in estimating the cost of stores at points of consumption. The main purchasing depots are at New York, Baltimore, New Orleans, Boston, Louisville, Saint Louis, Chicago, Fort Leavenworth, Saint Paul, Omaha, San Francisco, and Portland, Oreg.

Supplies are also purchased by or under the supervision of the chief commissaries of the Departments of Texas, of Arizona, the district of New Mexico, and by the depot-commissary at Sioux City.

In Texas it has been found that but few stores (beef excepted) could

be purchased economically. Portions of the flour, corn-meal, beans, vinegar, and salt required have been purchased there.

It is believed that most of the pork, bacon, flour, and beans required for consumption by the troops in the Department of Arizona, during the ensuing year, can be purchased from the products of that Territory or its vicinity. Portions of those articles were so procured last year, and the chief commissary of the department has been instructed to advertise for proposals for the entire quantities thereof required for the present year, pork and bacon for Camp Apache excepted.

The greater part of the flour and portions of the beans, corn-meal, and salt required in New Mexico are purchased there under contracts made by the chief commissary of the district.

Within the fiscal year 165 advertisements for proposals for fresh beef and other supplies were reported to this Office, and 217 contracts for fresh meats, 146 contracts for miscellaneous articles, 38 contracts for complete rations for recruiting-parties and recruits, and 318 contracts, consisting of written proposals and acceptances, were received and filed as required by law.

The following statement, prepared from official reports received at this Office from the principal purchasing depots, and from contracts for furnishing supplies to posts in Texas, New Mexico, and Arizona, shows the average prices of the components of the Army ration (fresh beef excepted) for the last two fiscal years:

Articles.	Fiscal year 1873–74.	Fiscal year 1874–75.	Articles.	Fiscal year 1873–74.	Fiscal year 1874–75.
	Cents.	*Cents.*		*Cents.*	*Cents.*
Pork ..... per pound.	8.36	10.62	Coffee, roasted ..... per pound.	25.23	25.9[illegible]
Bacon ..... do....	10.43	15.80	Tea, black ..... do....	72.29	70.3[illegible]
Flour ..... do....	4.22	3.65	Tea, green ..... do....	86.08	84.02
Hard bread ..... do....	5.34	5.15	Sugar ..... do....	10.25	9.94
Corn-meal ..... do....	2.43	2.76	Vinegar ..... per gallon.	22.84	24.04
Beans ..... do....	4.89	4.23	Candles ..... per pound.	18.00	17.46
Pease ..... do....	3.59	3.74	Soap ..... do....	6.24	6.16
Rice ..... do....	8.95	8.39	Salt ..... do....	1.63	1.26
Hominy ..... do....	2.81	3.36	Pepper ..... do....	33.00	31.4[illegible]
Coffee, green ..... do....	25.64	22.74			

The average prices of fresh beef, as per contracts in force in the last fiscal year, were as follows in the several States and Territories:

State or Territory.	Price per pound.	State or Territory.	Price per pound.	State or Territory.	Price per pound.
	Cents.		*Cents.*		*Cents.*
Maine	14	Alabama	9.2	Indian	6.3[illegible]
Massachusetts	13.1	Mississippi	6.66	Wyoming	[illegible]
Rhode Island	10.5	Louisiana	8	Dakota	[illegible]
Connecticut	10.4	Arkansas	10	New Mexico	[illegible]
New York	10.79	Texas	5.27	Colorado	[illegible]
Pennsylvania	10.8	Tennessee	8.44	Utah	[illegible]
Maryland	12.62	Kentucky	7.97	Montana	[illegible]
District of Columbia	13	Illinois	9.5	California	[illegible]
Virginia	8.73	Michigan	11.6	Arizona	[illegible]
North Carolina	9.23	Missouri	5.45	Washington	[illegible]
South Carolina	10.23	Minnesota	7.12	Idaho	[illegible]
Georgia	7.48	Nebraska	5.72	Nevada	[illegible]
Florida	8.91	Kansas	9.15	Oregon	[illegible]

Under the authority and requirements of section 6 of the act approved March 3, 1865, (sections 1149 and 1301, Revised Statutes,) the Subsistence Department, within the fiscal year, furnished tobacco, at cost prices, to enlisted men of the Army to the value of $121,984.80, making the monthly average $10,165.40.

During the fiscal year there were received from 445 officers who performed duty in the Subsi stence Department—

Returns of provisions	2,695
Returns of commissary property	1,020
Accounts-current	2,819
Total received	6,534

Within the same period there were examined in this Office, and forwarded to the Third Auditor of the Treasury for final settlement—

Returns of provisions	2,665
Returns of commissary property	1,051
Accounts-current	2,841
Total examined	6,557

Under the act of June 23, 1870, as extended by the act of June 7, 1872, and further extended for one year by the act of June 18, 1874, credits were recommended in the cases of 19 officers in the sum of $12,934.82; making the total number of officers relieved under the acts mentioned 808, in the total amount of $237,452.65.

Under the third section of the act of July, 1864, and the acts supplementary thereto, 431 claims for subsistence supplies alleged to have been furnished to the Army by loyal citizens in States not in rebellion, and receipted for by the proper officer receiving the same, or to have been taken by such officers without giving such receipts, were filed in this Office for examination; 32 such claims, amounting to $4,828.48, were examined, and recommended to the Third Auditor of the Treasury for payment; 210, amounting to $151,051.55, were rejected; 70 rejected claims were re-examined upon new evidence.

Under the joint resolution of Congress of July 25, 1866, and section 3 of the act of March 3, 1873, 175 certificates for commutation of rations to Union soldiers while prisoners of war were received at this Office and paid to the claimants or their legal heirs. These payments amounted to $5,143.50.

In addition to claims under the above-mentioned special acts of Congress, 243 ordinary claims, amounting to $77,202.84, have been received and examined; of which 179, amounting to $9,222.84, have been recommended for payment; 38, amounting to $4,171.83, have been rejected; and 26, amounting to $66,808.73, have been partially examined. Of rejected claims of this class, 70, amounting to $7,239.31, have been re-examined upon additional evidence, and recommended for payment; and 14, amounting to $4,012.45, have been again rejected.

If the examination of war claims is to be continued under the act of July 4, 1864, and the acts supplementary thereto, I earnestly recommend that three temporary clerks (one of class 4, one of class 3, and one of class 2) be added to the force of this Office, the force at present authorized being inadequate to the proper performance of the work of the Bureau.

The depot and purchasing commissaries at New Orleans, Louisville, Fort Leavenworth, Omaha, Saint Paul, San Francisco, and Portland, Oreg., in addition to the purchasing and depot duties, perform the duties of chief commissary of the departments in which those depots are situated. The duties of chief commissaries of divisions and depart-

ments, which consist in procuring supplies, revising requisitions and estimates, and in generally supervising affairs of the Subsistence Department, under the orders of the Commissary-General of Subsistence and their respective division and department commanders, are important, and upon their proper performance depends, to a great extent, the successful and economical working of the Department.

A commissary of subsistence, or an officer acting as such, is on duty at each division and department headquarters as chief commissary. In Texas and Arizona line officers are temporarily acting, but it is proposed to send officers of the Subsistence Department to those departments at an early date.

During the past year several suggestions with reference to an increase or modification of the Army ration have been received at this Office. This subject has, from time to time during the past few years, been brought to the attention of the War Department by the Commissary-General of Subsistence through his annual reports, special communications, and the draught for proposed regulations for the Subsistence Department, submitted to the War Department on the 26th of November, 1870.

In his annual report for the year 1869 the then Commissary-General (General A. B. Eaton) says:

> The regular ration provided for the Army can probably be improved by being composed of a greater variety of articles, by a diminution or an increase of some of its present components, and also by a change in the method of providing the Army with bread, and by utilizing, in the interests of soldiers' messes, all the savings made in baking the flour issued to them by the Department.

In a communication to the Adjutant-General of the Army, dated June 17, 1869, the Commissary-General wrote as follows:

> The Subsistence Department should own and conduct all Army bakeries, and should bake the soldiers' flour exclusively, in the interests of the soldier and of his table-fare. The amount of bread usually supplied to soldiers should be twenty-two ounces a day, and the loaves should be scaled to weigh that when a day old or stale.

In the draught for the proposed regulations for the Subsistence Department submitted by the Commissary-General in November, 1870, the following ration was recommended:

> Twelve ounces of pork or bacon, or twenty ounces of fresh or salt beef; eighteen ounces of flour or soft bread, or one pound of hard bread; and to every one hundred rations fifteen pounds of beans or ten pounds of rice; ten pounds of green coffee, or one pound and eight ounces of tea; fifteen pounds of sugar; four quarts of vinegar; one pound and four ounces of adamantine candles; four pounds of soap; three pounds and twelve ounces of salt; and four ounces of black pepper.
>
> The following substitutes for articles of the established ration may be issued: In lieu of the ration of pork, bacon, or beef, twenty-four ounces of fresh mutton, or twelve ounces of dried or jerked beef, or fourteen ounces of dried fish, or eighteen ounces of pickled or fresh fish; in lieu of the ration of flour or bread, twenty ounces of cornmeal; and to every one hundred rations, in lieu of beans or rice, fifteen pounds of peas or hominy, or eight pounds of dried apples or dried peaches, or nine pounds and six ounces of desiccated potatoes, or six pounds and four ounces of desiccated mixed vegetables; in lieu of green coffee, eight pounds of roasted (or roasted and ground) coffee; in lieu of sugar, two gallons of molasses; in lieu of vinegar, one quart of pickles, kraut, or curried cabbage, to the extent of one-fourth of the vinegar due.

The board of officers convened by Special Order No. 260, War Department, Adjutant-General's Office, July 3, 1870, to prepare "a system of general regulations for the administration of the affairs of the Army," &c., recommended the following modifications of the ration as proposed by the Commissary-General, viz: Eighteen ounces of flour, instead of eighteen ounces of bread or flour; a reduction of two pounds of green, or one pound and eight ounces of roasted coffee, three pounds of sugar, and two ounces of pepper to the hundred rations; an increase of one

half pound of tea and four ounces of salt to the hundred rations; that wheat and other meal should be issued as well as corn-meal, as recommended by the Commissary-General; and, in lieu of vinegar, four times the amounts of pickles, kraut, or curried cabbage, recommended by the Commissary-General.

I am of the opinion that eighteen ounces of flour should be issued; that the coffee, sugar, and pepper ration should not be reduced, and would recommend the increase of the tea and salt ration as suggested by the board; also that wheat and corn-meal (at the rate of twenty ounces to the ration) may be issued in lieu of flour. It is probable that some other articles, perhaps evaporated potatoes and onions, or canned tomatoes, may be substituted to advantage for desiccated potatoes and mixed vegetables, for issue in lieu of beans, pease, rice, or hominy; but as this subject is now being investigated jointly with the Medical Department, I am not prepared to make recommendations thereon at present. As soon as these investigations are completed, the result will be reported to you, and such orders requested as may then be deemed proper.

Should the ration I have above recommended be adopted, the bread baked by and at the expense of the Subsistence Department, and all which can be baked from eighteen ounces of flour issued to the troops, if required, and, if not, the money received from savings, as well as all other moneys received from the savings of the ration, used only for the purchase of food for the troops, I am of the opinion that the ration will be found ample and sufficient in variety, and that no reasonable complaint with reference to the quantity or variety of food furnished by it will be heard.

Mess-furniture for companies should be furnished by the Government, as are cooking-stoves and cooking-utensils, and not, as at present, from the savings of the ration.

As by law the superintendence of the cooking of the ration is devolved upon the medical and line officers of the Army, it is not understood that this Department has any authority to prepare and issue a manual of instructions for Army cooks, as has been suggested.

As it will be necessary to purchase supplies for posts on the headwaters of the Missouri River, Fort Pembina, and distant posts in Texas and Arizona for use in the next fiscal year, and ship the same prior to the 1st of July, 1876, when the appropriation for that fiscal year would, under the general laws governing appropriations, become available for disbursement, it is respectfully recommended that the following proviso be added to the subsistence section of the act making appropriations for the support of the Army for the fiscal year ending June 30, 1877, viz:

Provided, That $300,000 of the money thus appropriated may be applied by the Commissary-General of Subsistence, prior to the 1st day of July, 1876, to the purchase of supplies required for advance shipments to posts on the Upper Missouri, Fort Pembina, and distant posts in Texas and Arizona.

Under the act of Congress approved February 10, 1875, entitled "An act to provide for the relief of persons suffering from the ravages of grasshoppers," $150,000 was appropriated, and, by the direction of the Secretary of War, this Bureau was charged with supplying subsistence to the destitute.

The chief commissaries of subsistence of the Department of Dakota, the Platte, and the Missouri, were designated to purchase food and supervise its issue to the sufferers within their respective departments.

During the period when destitution was greatest and relief most nec-

essary, issues amounting to 1,957,108 rations were made to 63,593 adults, and 43,942 children under twelve years of age, residing in the States of Minnesota, Nebraska, Iowa, and Kansas, and the Territories of Dakota and Colorado.

Of the money appropriated, the sum of $138,000 was placed in the hands of the chief commissaries before mentioned; of which $132,887.69 was disbursed, and $5,112.31 was returned to the Treasury.

A full and detailed report of these issues will hereafter be submitted in accordance with the act of Congress.

It affords me great pleasure to report that during the past year the officers of the Subsistence Department and the officers of other branches of the Army who have performed duty in the Department, as also the commissary-sergeants, have, with rare exceptions, performed their duties in a manner which is satisfactory to the Department and creditable to themselves.

I cannot close this report without referring to the great loss sustained by the Department and the Army by the death of my predecessor, the late Brig.-Gen. Alexander E. Shiras, brevet major-general U. S. A., which occurred in this city on the 14th of April last.

By his great ability, gentlemanly courtesy, sterling integrity, devotion to duty, and genial social qualities, he had endeared himself to the officers of the Department and of the Army at large, by whom his memory will ever be cherished.

Very respectfully, your obedient servant,

R. MACFEELY,
Commissary-General of Subsistence.

Hon. WILLIAM W. BELKNAP,
Secretary of War.

REPORT OF THE SURGEON-GENERAL.

WAR DEPARTMENT, SURGEON-GENERAL'S OFFICE,
Washington, October 1, 1875.

SIR: I have the honor to submit the following statement of finances and general transactions of the Medical Department of the Army for the fiscal year ending June 30, 1875:

FINANCIAL STATEMENT.

The funds subject to the requisitions of the Medical Bureau during the year ending June 30, 1875, were—

I. Appropriation for the relief of sick and discharged soldiers, under the act approved July 5, 1862:	
Balance remaining July 1, 1874	$9,509 21
Carried to the surplus fund of the Treasury	1,865 11
Balance June 30, 1875	7,644 10
II. Appliances for disabled soldiers, under act of June 6, 1872:	
Balance July 1, 1874	$8,533 88
Carried to the surplus fund June 30, 1875	8,533 88
III. Appropriation for the support of the Army Medical Museum and the library of the Surgeon-General's Office for the year ending June 30, 1874:	
Balance July 1, 1874	$516 02
Expended during the year	516 02

IV. Appropriation for the Army Medical Museum and library for the year ending June 30, 1875:

Act of June 16, 1874	$10,000 00
Expended during the year	10,000 00

V. Appropriation for completing the first edition of the Medical and Surgical History of the War, act of June 8, 1872:

Balance July 1, 1874	$20,148 66
Disbursed during the year	6,868 86
Balance June 30, 1875	13,279 80

VI. Appropriation for preparing a second edition of the Medical and Surgical History of the War, act of June 23, 1874:

	$60,000 00
Disbursed during the year	19,911 25
Balance June 30, 1875	40,088 75

VII. Amount expended under the act of May 28, 1872, to provide for furnishing trusses to ruptured soldiers $2,915 15

VIII. Appropriation for the Medical and Hospital Department of the Army for the time prior to July 1, 1870:

Balance July 1, 1874		$717,671 53
Refunded during the year		7 69
		717,679 22
Disbursed during the year	$1,846 21	
Carried to surplus fund June 30, 1875	713,571 50	
		715,417 71
Balance June 30, 1875		2,261 51

IX. Appropriation for the Medical and Hospital Department for the year ending June 30, 1871, and previous years, re-appropriated by act of March 3, 1875:

	$699 92
Disbursed during the year	683 67
Balance June 30, 1875	16 25

X. Appropriation for the Medical and Hospital Department for the year ending June 30, 1871:

Balance July 1, 1874	$9,496 42
Carried to the surplus fund	9,496 42

XI. Appropriation for the Medical and Hospital Department for the year ending June 30, 1872:

Balance July 1, 1874	$6,286 59
Carried to the surplus fund	6,286 59

XII. Appropriation for the Medical and Hospital Department for the year ending June 30, 1873:

Balance July 1, 1874		$19,310 26
Disbursed during the year	$63 25	
Carried to the surplus fund	3,247 01	
		3,310 26
Balance June 30, 1875		16,000 00

XIII. Appropriation for the Medical and Hospital Department for the year ending June 30, 1874:

Balance July 1, 1874	$24,160 92
Disbursed during the year	13,596 72
Balance June 30, 1875	10,564 20

XIV. Appropriation for the Medical and Hospital Department for the year ending June 30, 1875:

Appropriated by act of June 16, 1874	$200,000 00
Disbursed during the year	149,526 03
Balance June 30, 1875	50,473 97
Required to complete contracts made during the fiscal year	$50,300 00
Number of trusses furnished during the year	228

Number of artificial limbs allowed during the fiscal year:

In kind.		By commutation.
Arms,	1	17
Legs,	4	8
Feet		8
Apparatus		202
	5	235

HEALTH OF THE ARMY DURING THE FISCAL YEAR ENDING JUNE 30, 1875.

The monthly reports of sick and wounded received at this Office represent an average mean strength of 21,896 white and 2,247 colored troops.

Among the *white troops* the total number of cases of all kinds reported as taken on the sick-list was 36,854, being at the rate of 1,683 per 1,000 of mean strength. (That is, rather more than three entries on sick report during the year for every two men.) Of this number, 31,083 cases, or 1,420 per 1,000 of strength, were taken on sick report for disease, and 5,771 cases, or 264 per 1,000 of strength, for wounds, accidents, and injuries of all kinds.

The average number constantly on sick report during the year was 944 men, or 43 per 1,000 of mean strength. Of these, 748 men, or 34 per 1,000 of strength, were constantly under treatment for disease, and 196 men, or 9 per 1,000 of strength, for wounds, accidents, and injuries.

The total number of deaths reported from all causes was 239, or 11 per 1,000 of mean strength. Of these, 162, or 7 per 1,000 of strength, died of disease, and 77, or 4 per 1,000 of strength, of wounds, accidents, and injuries. The proportion of deaths from all causes to cases treated was 1 to 154.

The total number of white soldiers reported to have been discharged the service on "Surgeon's Certificate of Disability" was 616, being at the rate of 28 per 1,000 of mean strength.

Among the *colored troops*, the total number of cases of all kinds reported was 3,779, being at the rate of 1,682 per 1,000 of mean strength. Of these, 3,183 cases, or 1,417 per 1,000 of mean strength, were cases of disease, and 596 cases, or 265 per 1,000 of strength, were wounds, accidents, and injuries.

The average number constantly on sick report was 112 men, or 50 per 1,000 of mean strength, of whom 86 men, or 38 per 1,000, were under treatment for disease, and 26 men, or 12 per 1,000, for wounds, accidents, and injuries.

The total number of deaths reported from all causes was 37, or 16 per 1,000 of mean strength. Of these 30, or 13 per 1,000 of mean strength, died of disease, and 7, or 3 per 1,000, of wounds, accidents, and injuries. The proportion of deaths from all causes to cases treated was 1 to 102.

The total number of colored soldiers reported to have been discharged on "Surgeon's Certificate of Disability" was 62, or 28 per 1,000 of mean strength.

LIMITED OCCURRENCE OF YELLOW FEVER AMONG THE TROOPS.

Two cases of yellow fever, both of which recovered, occurred in the garrison at Fort Barrancas, Florida, during 1874. The fever having become epidemic in the city of Pensacola and its vicinity, the troops stationed at Fort Barrancas were removed to Santa Rosa Island, and went into camp near Fort Pickens on the 9th of September, leaving at Fort Barrancas a small detachment, almost all of whom had previously had the fever. The two cases mentioned above were an officer who was taken sick in camp immediately after the troops were moved, and a hospital attendant at Barrancas, who, just before he was attacked, had visited the adjacent village of Warrington without leave, and got drunk at a house in which several cases of yellow fever had occurred earlier in the season.

Since the close of the fiscal year, yellow fever has again visited Pensacola, and this time the troops stationed at Fort Barrancas were less fortunate. Yellow fever suddenly, and without warning, made its appearance in the garrison July 18, 1875, and although the troops were moved to Santa Rosa Island on the 22d, it would appear that some of them had been already exposed to the cause of the disease, for cases continued to occur among them for some time after the movement was effected.

During the months of July and August of this year, 74 cases of yellow fever and 29 deaths were reported at this post, of which 42 cases and 19 deaths occurred among the officers and enlisted men, and the remainder among the families of the officers and men at the post.

Assistant Surgeon George M. Sternberg, the post surgeon—who was himself attacked by the disease, but fortunately recovered—in a report announcing the outbreak of the epidemic in the garrison, suggests the following explanation of its occurrence:

> The bark Von Moltke, from Havana, came into this harbor June 28, with four cases of yellow fever on board, and having lost one *en route*. She anchored opposite our post, and remained over night, going the next morning to the quarantine station.
>
> I can only account for the occurrence of these cases by supposing that germs from this vessel were wafted or conveyed ashore, and, having effected a lodgment, have since multiplied sufficiently to have given rise to the disease.

The only other post at which cases of yellow fever were reported among the troops last summer was Key West, Florida. Several cases of yellow fever having been reported in the city of Key West, the garrison at Key West Barracks was removed, April 2, 1875, to Indian Key, Florida, and entirely escaped the fever, though two cases and one death occurred in the small detachment left in charge of the barracks at Key West.

WORK PERFORMED IN THE RECORD AND PENSION DIVISION.

The total number of official demands upon this division during the fiscal year for information as to the cause of death of deceased soldiers and the hospital record of invalids was 20,332, being over 2,000 more than during the previous fiscal year. Nine hundred and seventy-five unsearched cases remained on hand, unanswered, at the commencement of the fiscal year, making 21,307 cases to be disposed of during the year. Of the new cases, 14,809 were from the Commissioner of Pensions, 5,204 from the Adjutant-General of the Army, and 319 from miscellaneous sources.

Search was made and replies furnished to the proper authorities in 15,542 of these cases, viz: 10,708 to the Commissioner of Pensions,

4,550 to the Adjutant-General of the Army, and 284 to miscellaneous applicants, leaving 5,765 unsearched cases on hand on the 1st of July, 1875.

It will be observed that while the clerical force of this division was diminished by the discharge of twenty-seven clerks by new legislation at the commencement of the fiscal year, the demands upon it for work, especially from the Commissioner of Pensions, instead of diminishing during the year, as was hoped, have considerably increased. As an inevitable result, in spite of the most systematic efforts, the work is much behind-hand, and this undesirable state of affairs must continue, unless either the clerical force is increased, or the demands upon the division for information very considerably diminished.

DIVISION OF SURGICAL RECORDS.

The work performed in this division may be classified as: 1. The registration of the surgical data of the Army for the current year; 2. The continuation of the compilation of the Surgical History of the late war; 3. The perfecting of the catalogue and descriptions of the surgical and anatomical material in the Army Medical Museum.

In consequence of the wide distribution of the Army in small detachments, the surgical reports and returns are numerous. Two thousand and sixty-five reports in the form required by regulations, and 1,765 special surgical reports, were received during the year, and examined, classified, indexed, and filed. In addition to these are the returns of killed and wounded in action.

Lists of wounded, and classified returns of killed and wounded in Indian hostilities, supplemented in most instances by details of the most important cases, have been received from medical officers present at the engagements, as follows: 1. From Acting Assistant Surgeon Thomas G. Maghee. Report of skirmish of Company B, Second Cavalry, July 4, 1874, with Arapahoes, at Young's Point, Wyoming, (two privates killed, a lieutenant, an acting medical officer, and three privates wounded;) also, report of skirmish of Company B, Second Cavalry, with Shoshone scouts at Sweet Water Mountain, Wyoming, July 19, 1874, (one scout being wounded.) 2. From Assistant Surgeon W. E. Waters, U. S. A., chief medical officer of the Red River expedition. Report of ,engagement of Companies F and G, Sixth Cavalry, at Red River, August 30, 1874, (a sergeant and private severely wounded.) Report of a skirmish near Washita River, Texas, September 9, 10, 11, 1874, by detachments of the Sixth Cavalry and Fifth Infantry, (one sergeant killed, one officer, two non-commissioned officers, and two privates wounded.) Report of a skirmish near Camp Supply, September 12, 1874, by a party of couriers from Company M, Sixth Cavalry, (one private and one camp-follower killed.) Summary of the casualties of the expedition in Western Texas during September, 1874, (four killed, nine wounded.) Report of skirmish of Company H, Eighth Cavalry, on North Fork of Red River, November 6, 1874, (four wounded; two severely, two slightly.) 3. From Acting Assistant Surgeon R. E. Leightburne. Report of skirmish of Tonto scouts, at Cave Creek, Arizona, September 18, 1874, (two wounded; one mortally.) 4. From Surgeon F. L. Town, U. S. A. Report of the affair at Wichita agency, Indian Territory, by Companies C, E, H, L, Tenth Cavalry, and Company I Twenty-fifth Infantry, (four wounded severely.) 5. From Acting Assistant Surgeon W. E. Day. Report of a skirmish of Company K, Fifth Cavalry, November 1, 1874, at Sweet Pass, Arizona, (one officer severely wounded.) 6. From Acting Assistant Surgeon A. T. Fitch.

Report of skirmish with Indians near Cheyenne agency, April 6, 1875, by Company M, Sixth Cavalry, and Companies D and H, Tenth Cavalry, (three non-commissioned officers and two privates wounded.) 7. From Acting Assistant Surgeon F. H. Atkins. Report of skirmish of Company H, Sixth Cavalry, April 23, 1875, at North Fork of Sappa Creek, (one non-commissioned officer and one private killed.) The aggregate of officially reported casualties in Indian hostilities during the year is, therefore, 11 killed and 48 wounded; but this return is, beyond doubt, very imperfect. The attention of medical directors has been called to the necessity of exacting the strictest compliance with the orders requiring lists of wounded and classified returns of wounds and injuries to be transmitted punctually within two days when possible after every hostile engagement, however limited, in order that hereafter the losses of the Army from this cause may be known with all practicable precision.

During the fiscal year, in a mean strength of 24,143 officers and men returned on the monthly reports of sick and wounded, there were included in *Class V*, comprising cases of wounds, accidents, and injuries, 6,367 instances, with 84 deaths; a fatality of 3.4 per 1,000 of mean strength, or slightly less than the mortality from this cause during the previous year.

There has been compiled a report on the more important surgical cases treated in the Army in the period of 1871–'75, and it already comprises detailed histories or memoranda of 2,486 surgical cases, including accounts of 206 amputations and 18 excisions, 114 fractures of the skull, and much other descriptive and statistical matter of value.

The work upon the surgical statistics of the war, requiring an amount of careful research not readily appreciated, has steadily progressed. At my last report the histories of 222,497 surgical cases and 40,126 operations had been examined and classified, and entered on the registers; or an aggregate of 262,623 histories. During the past year there have been examined and entered 2,600 cases of wounds and injuries, and 305 cases of surgical operations, an aggregate of 265,528 histories that have been scrutinized and recorded. Additional information respecting 8,404 cases has been obtained from various sources and entered on the registers. The indices have been searched for the comparison of cases in 22,361 instances, and 15,732 names were indexed. Six thousand four hundred and seventy-eight cases were searched in the record and pension division, and 3,340 cases in the Pension-Office. The value of the information thus obtained regarding the remote effects of injuries and of mutilations can hardly be overestimated. It is a contribution to surgical knowledge of a kind fully appreciated, and, indeed, only attainable within a few years, and unattempted prior to the late war.

To keep up the different catalogues and registers of the Army Medical Museum, to prepare, preserve, and repair the preparations, has required no little time and labor. The weekly inspections indicate that the condition of the specimens is exceptionally good. As much time as the assistants can spare has been devoted to the mensuration of crania, and other osteological measurements, to the analysis of urinary and other concretions, and to minute descriptions of the more important new contributions. The surgical reports from the posts are carefully examined, and in all cases in which autopsies have been practiced, unless pathological specimens have been forwarded, inquiries have been addressed to the medical officer in charge. In response to thirty-eight such letters of inquiry, sixteen valuable specimens have been received, that would otherwise probably have been lost to the museum.

ARMY MEDICAL MUSEUM.

Nine hundred and ninety specimens have been added to the several sections. The contributions, though less numerous, have not been less valuable than those of former years. The number of visitors during the year was 26,858, an increase over those of the previous year of more than 800; and the extent to which the collections are consulted by scientific students for authentic evidence of the effects of diseases and injuries has steadily augmented.* The following synopsis indicates the acquisitions of each section:

Surgical section.

Specimens in the museum July 1, 1874	6,447
Specimens in the museum July 1, 1875	6,539
Increase during the year	92

Medical section.

Specimens in the museum July 1, 1874	1,225
Specimens in the museum July 1, 1875	1,279
Increase during the year	54

Microscopical section.

Specimens in the museum July 1, 1874	6,738
Specimens in the museum July 1, 1875	7,275
Increase during the year	537

Anatomical section.

Specimens in the museum July 1, 1874	1,119
Specimens in the museum July 1, 1875	1,254
Increase during the year	135

Section of comparative anatomy.

Specimens in the museum July 1, 1874	1,404
Specimens in the museum July 1, 1875	1,522
Increase during the year	118

Miscellaneous section.

Specimens in the museum July 1, 1874	186
Received 67; transferred 13.	
Specimens in the museum July 1, 1875	240
Increase during the year	54

Six surgeons, twenty-two assistant surgeons, eleven acting assistant surgeons, two line officers, two hospital-stewards, and twenty-seven practitioners in civil life made contributions. Many specimens were prepared at the museum, others were procured by the exchange with other museums of objects of natural history or ethnology collected by medical officers, and a few were obtained on favorable terms by purchase. The acquisition, through the Smithsonian Institution, of the Alaskan and Siberian crania collected by Mr. Dall, and the purchase of a series of seventy crania of Northern Esquimaux, collected by Dr.

*Among the foreign visitors, whose wide experience made their commendation peculiarly gratifying, were Baron Schwartz-Sanborn, Director of the Vienna World-Exposition of 1873, and Professor John Eric Erichsen, of University College, London. The latter, on his return to England, devoted a portion of an address on American surgery (London Lancet, November 21, 1874, vol. II, p. 717) to a description of the collections of the Army Medical Museum.

Hayes, renders this subdivision of the craniological cabinet the most complete that has been collected. Assistant Surgeons McElderry, Tremaine, King, and Acting Assistant Surgeons Comfort and Yarrow have been zealous and successful in exploring tumuli and collecting prehistoric or Indian skulls. The series of crania of the earlier races of this continent greatly exceeds in number and variety any collected elsewhere. The skulls have been measured with great care, and a descriptive catalogue, with tabular statements of the measurements, is ready for publication whenever means are available.*

The preparations contributed to the surgical section have been varied and valuable. Dr. H. Ludington, ex-surgeon of volunteers, and Assistant Surgeon Buchanan, United States Army, have been the largest contributors during the year. The donations include a number of vesical concretions formed about missiles or bone-fragments, from Dr. Forwood of Chester, Dr. McGuire of Richmond, and Terry of Columbus, Georgia. The number of specimens of this group contained in the museum exceeds the entire number of cases of this infrequent cause of lithotomy heretofore recorded in surgical annals.

MISCELLANEOUS.

Authority having been granted for the Congressional Printer to print and bind 5,000 additional copies of the Medical and Surgical History of the War of the Rebellion, by the "Act making appropriations for sundry civil expenses," &c., approved March 3, 1875, the work was immediately put in progress; the illustrations and composition for the second issue of the first part are completed, and the press-work and binding will doubtless be finished before the assembling of the next Congress.

About 4,000 volumes, exclusive of pamphlets, have been added to the library during the past year.

The subject-catalogue, including references to the principal original papers in medical journals and transactions, is far advanced in preparation; and even in its present incomplete form has been found of much value, not only for the work of this Office, but for the benefit of the medical writers of this country, who must refer to this collection for much information and literature which cannot be obtained elsewhere in the United States, and whose inquiries could not be answered without some such systematized index.

The reports prepared under the direction of this Office in relation to cholera, and presented to Congress at its last session, have been printed, and will be distributed by the time Congress meets.

These reports are: History of the cholera-epidemic of 1873 in the United States, by Ely McClellan, assistant surgeon, United States Army; 2. History of the travels of Asiatic cholera, by Dr. John C. Peters, of New York City, and Ely McClellan, assistant surgeon, United States Army; 3. Bibliography of cholera, by John S. Billings, assistant surgeon, United States Army; and contain the record of over 7,000 cases—the

* In my last two annual reports I have respectfully called attention to the report of the House Committee on Military Affairs on the utility of this catalogue (Forty-third Congress, Report No. 56 on H. R. 3453). Its publication has been twice recommended by the honorable the Secretary of War, and was voted by the House of Representatives without opposition, and favorably considered in the Senate, but without final action. Earnest appeals from European scientists have been received, especially from Dr. J. Barnard Davis and Professor Paul Broca, anthropologists of the highest rank in Great Britain and France, expressing the hope that the communication of this important mass of information to the scientific world might not be longer delayed.

history of cholera from the earliest times, and a bibliography of the subject which includes over 8,000 titles.

A report on the hygiene of the United States Army, by Assist. Surg. John S. Billings, United States Army, with descriptions of the several military posts by the medical officers of the Army, being circular No. 8 of this Office, has been prepared and issued during the year. It forms a volume of 625 pages 4to, which contains much valuable and interesting statistical and topographical information.

The requirements of the Army as to medical officers during the past year has been as follows:

Number of permanent posts	179
Number of temporary posts and substations	30
Total	209
Number of military expeditions sent out during the year	15
Number of scouting parties sent out during the year	50

The fifteen expeditions required the services of 29 medical officers; with the fifty scouting parties 41 medical officers were on duty.

At date of last report there existed 56 vacancies in the medical staff of the Army in the grade of assistant surgeon.

Two Army medical boards were convened on the 4th of August, 1874—one at New York city and one at San Francisco—for the examination of candidates for appointment in the medical staff. One hundred and twenty-six candidates have been examined by these boards, (out of 156 invited to appear for the purpose,) of whom 41 were found qualified and approved. Of these approved candidates 17 were appointed assistant surgeons on November 10, 1874, and twenty-three on June 26, 1875; one of those approved was not appointed. The board convened at San Francisco was dissolved January 28, 1875, after having disposed of all the candidates who presented themselves. The board convened in New York City is still in session.

During the past year one surgeon and one assistant surgeon have died: leaving at present seventeen vacancies in the grade of assistant surgeon.

J. K. BARNES,
Surgeon General, U. S. A.

The SECRETARY OF WAR.

REPORT OF THE PAYMASTER-GENERAL.

PAYMASTER-GENERAL'S OFFICE,
Washington, October 18, 1875.

SIR: I have the honor to transmit herewith my annual report of the transactions of the Pay Department for the fiscal year ending June 30, 1875. A duplicate copy thereof will be forwarded to your Office as soon as printed.

Very respectfully, your obedient servant,

BENJ. ALVORD,
Paymaster-General, U. S. A.

To the ADJUTANT-GENERAL *of the Army.*

PAYMASTER-GENERAL'S OFFICE,
Washington, October 11, 1875.

SIR: I have the honor to submit my annual report of the transactions of the Pay Department of the Army for the fiscal year ending June 30, 1875.

Tabular statements herewith inclosed show in detail the fiscal operations of the Department for that year, summarily stated as follows:

RECEIPTS AND DISBURSEMENTS.

Balance in hands of paymasters July 1, 1874		$2,637,548 86
Remitted from Treasury during the fiscal year		11,983,303 52
Soldiers' deposits received during the fiscal year		325,255 80
Receipts from other sources		498,763 81
Total		15,444,871 99
Disbursed to the Army	$12,272,102 38	
Disbursed to Military Academy	202,236 04	
Disbursed on Treasury certificates	1,020,567 93	
Total disbursements	13,494,906 35	
Surplus funds deposited in Treasury	301,137 38	
Paymasters' collections deposited in Treasury	498,578 70	
Balance in hands of paymasters June 30, 1875, to be accounted for in next report	1,150,249 56	
Total		15,444,871 99

It was found, toward the end of the month of May last, that the appropriation for the fiscal year ending June 30, 1875, would not suffice for the payment of officers and men of the Army for the entire month of June. They have been paid for fifteen days, viz, from the 1st to the 15th of that month. Therefore in the estimates which I have forwarded I have asked for an appropriation to supply this deficiency.

The act of June 16, 1874, appropriated $1,300,000 less than was called for by the estimates of this Bureau, and $900,000 less than the estimates of the War Department.

In a letter to you in December, 1873, I set forth the reasons which would forbid any further reduction from my estimates, and they were founded on conclusions repeatedly referred to in my annual reports.

They had set forth that the rank and file would, in all probability, continue to be increased in numbers, owing to the decrease in the number of desertions, and the increase in the number of re-enlistments.

I have also had to make an estimate for a deficiency likely to occur in the appropriation for this fiscal year, and owing to similar causes. I would therefore respectfully recommend that the appropriations shall not in future be thus reduced; for our disbursements are not made on such contingencies, and are not liable to such fluctuations as those of some of the other departments of the Army, which depend on a state of war or of peace on the frontier.

That we cannot fairly look for any diminution in the rank and file during the current fiscal year, is clearly shown by the following statistics of the Army, obtained from the Adjutant-General's Office.

	In fiscal year ending June 30, 1874.	In fiscal year ending June 30, 1875.	Increase.	Decrease.
Number of desertions	4,606	2,521	.....	2,085
Re-enlistments	699	1,986	1,287	.....
Re-enlistments, (sergeants)	149	347	198	.....

It will be observed that the number of desertions are decreased nearly one-half, while the number of re-enlistments have increased nearly three times during the last fiscal year, as contrasted with the former year.

This betokens superior contentment, and is due, doubtless, not alone

to the pay being now graduated by length of service and to the effects of the deposit system, but is undoubtedly also due to an improvement in the whole tone and condition of the Army.

The increased number of re-enlistments of sergeants and other non-commissioned officers is an encouraging index, and accomplishes a result sought in the recent proposition for the re-organization of the French army.

The increased pay of that worthy class, the ordnance sergeants of posts, and the creation, by the act of March 3, 1873, of commissary sergeants of posts, with like compensation, have been calculated to stimulate in a healthy manner, the entire class of non-commissioned officers.

The number of deposits during the last year has increased, being 5,105, and for the previous fiscal year, 4,974.

The average amount of each deposit was $63.71 the past year; for the previous year, $69.72; showing a decrease in each amount, but an increase in the number availing themselves of the system. As in previous years, the average amount deposited, per company of troops, during the past year, has been largest in the Department of Arizona, to wit, $1,665.33 per company.

The total amount deposited during the year was $325,255.80. Doubtless the effect of the system has been, as heretofore, to diminish desertions.

There remained, on the 30th June last, $527,000 in the hands of the Government, received from deposits and not yet repaid, since the passage of the act of May 15, 1872.

A colonel of a regiment in the Department of Dakota, in which there had been a great diminution in the number of desertions and an increase in the number of re-enlistments, made a critical investigation of the causes, and, in a letter to me, attributes these satisfactory results to the laws of May 15, 1872, graduating pay according to length of faithful service, and providing for the deposit system. The recruiting service is also enabled to obtain a better class of recruits, as enjoined in General Orders No. 126 of 1874.

The passage of the act of March 2, 1875, and of joint resolution of March 3, 1875, permitting the number of paymasters to be established at fifty, was an important event for the Pay Department, and enabled me with great satisfaction, last spring, to give needed relief to officers long stationed in exposed, remote, and malarious districts, and to provide more efficiently for the payment of the troops.

But the sixth section of the act of March 3, 1869, (vol. 15, Statutes, page 318, or sect. 1194 of Revised Statutes,) says: "Until otherwise directed by law, there shall be no new appointments and no promotions in the Pay Department," and in the other branches of the staff. Under the act of March 2, 1875, above referred to, appointments can be made to the grade of paymaster, but none to fill vacancies in the grades of Paymaster-General, Assistant Paymaster-General, or Deputy Paymaster-General. The act of July 28, 1866, fixed the Pay Department at one Paymaster-General, with the rank of brigadier-general, two Assistant Paymasters-General, with the rank of colonel, and two Deputy Paymasters-General, with the rank of lieutenant-colonel, and (under the act of March 2, 1875) there are fifty paymasters with the rank of major.

The interdict prevents all promotions in this Department, and vacancies now exist in the grade of Deputy Paymaster-General, to which the two senior paymasters should be promoted. They are excellent officers, of long and honorable service in the line, in battle as well as in the staff, and should ere this have received this promotion.

By the act of June 4, 1872, (vol. 17, page 219, Statutes,) the President was "authorized to appoint a Paymaster-General, with the rank, pay, and emoluments of a colonel, (said appointment to date from the time the appointee assumed the duties of the office,) to fill the vacancy now existing."

At the date of the passage of this act, (as also of the proviso attached to the act of June 10, 1872, restoring promotions and appointments to the Engineer Department,) it was the avowed object of those who framed them in the House of Representatives to reduce the grades of all the chiefs of staff, as fast as vacancies should occur, to the rank of colonel.

But this policy has been abandoned, and ought to have been abandoned. The acts of June 23, 1874, and March 3, 1875, restore promotions and appointments in the Subsistence, Medical, Ordnance, Quartermaster's, and Adjutant-General's Departments, and leave the grade of the chiefs of those Departments, that of brigadier-general, as provided by the act of July 28, 1866. Vacancies of chief in the Ordnance and in the Subsistence Departments have occurred, and were filled in June, 1874, by appointments, with the rank of brigadier-general.

The language of the act of June 4, 1872, only provided for filling the then-existing vacancy of Paymaster-General with the rank of colonel, (that of the present incumbent,) leaving, in effect, the proper and permanent rank, that of brigadier-general, as provided in the eighteenth section of the act of July 28, 1866; and it is hoped that the anomaly will now be rectified by the explicit legislation of Congress.

The failure of the last Congress to provide for the permanent organization of the Pay Department was mainly due to a scheme, now abandoned, to alter fundamentally the basis of this Department, by paying the troops by checks instead of in money. Said scheme happily failed to become a law, and I trust that now a long-delayed act of justice will be done to the Pay Department by legislation for its permanent organization.

The seeming discrimination against this branch of the staff, we will believe, has been accidental and will be rectified.

It seems unnecessary to enter into the details of the claims of this Bureau to an organization equal, at least in its higher grades, to that of 1866—the number of which grades is relatively small.

The ever-increasing importance, responsibility, and difficulty of its duties, and the labor and hazard attending the performance of the same, are among its titles to an organization which shall afford a reasonable prospect of advancement in rank and compensation.

Legislation having now fixed the limit of the reduction in the lower grade, there remains nothing to be done but to open the higher grades, and I beg you will urge upon Congress the entire repeal of the interdict upon appointments and promotions.

I was gratified to observe that Congress, at the last session, passed the act of March 3, 1875, which provides for the punishment of any person who shall in any way aid or abet in the embezzlement of public funds. In letters to you of the 27th December, 1873, and 8th April, 1874, I called your attention to the necessity of such a law, and you made it the subject of a communication to the House of Representatives, which was printed among its documents. It re-enforced the recommendations of the Hon. G. S. Boutwell, who, in a letter to the Speaker of the House dated December 7, 1872, had called attention to the defects of the act of June 14, 1866. In the third section of said act, the final clause, defining the offense and the punishment, omitted the words, "banker, broker, or other person." This omission had been regarded by the Supreme

Court as a fatal defect, and precluding jurisdiction in the indictment in the case of the United States *vs.* Hartwell. (See opinion of Judge Swayne, Wallace Reports, vol. 6, p. 396.)

The special interest of this Office in this question grew out of the fact that I was informed by the Department of Justice that said omission had prevented the prosecution of the criminal indictment in the case of the United States *vs.* Polhemus and Jackson, charged with complicity with J. L. Hodge in his embezzlement.

The tables accompanying this report contain a new statement (not heretofore accompanying my annual reports) "of approved and suspended disbursements in paymasters' accounts rendered during the fiscal year ending 30th June, 1875."

Prior to the orders of the War Department of the 1st October, 1870, (reiterated in the year following,) the suspensions against paymasters for disallowances and overpayments were not fully presented and pushed until the close of the four years under a bond, but were left to settlement by the Second Auditor.

Under the system established by Circular No. 76, of 5th April, 1871, from this Office, issued in conformity to instructions of 1st October, 1870, from the War Department, the suspensions are made to appear monthly upon the accounts-current. This system has been now long enough in operation to test its merits. It is proper to record my conviction that it is a great improvement on the old method, for the paymaster is now compelled to keep himself constantly posted as to the state of his suspensions, and he is led to make collections of overpayments before parties die, are discharged, or resign from the service. The paymaster has additional stimulus to obtain the necessary evidence—is compelled to study the questions at issue, and becomes thus better posted in his duties.

The method of accounts now adopted enables this Office to state the accounts, keep the record of receipts, disbursements, and suspensions under each appropriation, with more exactness and promptitude, and it is thus able more speedily and satisfactorily to answer calls from the Executive or from Congress, and thus the better meet the responsibilities imposed on the Paymaster-General.

I will again call attention to the scheme favorably alluded to by you in your last annual report, for the enactment of a system of annuities for the families of deceased officers, by voluntary deductions from the monthly pay of officers. Certainly if private companies can make money by an annuity system, it is in the power of the Government at least to render itself secure in extending similar beneficent aid. It is proposed that it shall be done without eventual expense to the Government. The money to be deducted is worth to the Government a certain per centum of interest. This interest and the expectancy of life (arrived at by careful statistics) are the elements from which annuity-tables would be prepared by the most careful and critical calculations. The science of probabilities has reached great precision in its computations. But after certain tables had been used twenty years, more or less, then, if found defective, corrections could be made which would more perfectly accomplish the object sought.

Some officers have expressed a preference for a voluntary established assessment (made upon the death of the officer) upon each member of an association; a scheme so entirely different from the annuity plan that it probably would not at all conflict with it.

There is one precaution that I would emphasize, that neither myself nor any other officer be made (as in the case of the late Freedmen's Bureau)

the custodian of any fund, but that it be deposited in the Treasury, to be withdrawn according to law.

Attention is respectfully invited to the subject of re-imbursement to officers of cost of travel under orders.

Prior to July 1, 1874, a system of mileages prevailed, for which legislation has since substituted the system of "actual expenses." (See act of June 16, 1874.)

For short journeys "actual expenses" are found, in the majority of cases, to exceed "mileage," for the reason that the allowances for expenses of delays incident to the duty ordered are large in proportion to the distance traveled.

For long journeys the reverse is the case, for the reason that the distance traveled is much greater in proportion to the restricted time for which, under War Department rules, expenses of delays incident to duty may be charged, so that the item of charges for delays is not an important one in accounts for long journeys.

In the aggregate, payments on account of actual expenses fall short, in amount, of what would be the sum of mileage allowances for the same journeys.

The pecuniary advantage to the Government, so far as concerns the Army, of a system of actual expenses, is believed, however, to fall short of the objections to the system, which may be briefly stated as follows:

First. The labor to the officer, to the paymaster, to this Office, and to the Treasury Department, in the preparation, payment, and scrutiny of the vouchers, is a hundred fold more than in the case of mileage vouchers, for the reason that each item has to be specially set forth, and separately scrutinized. The statement of items sometimes covers two, and even three, pages of foolscap, whereas a mileage voucher for the same journey would have involved the consideration and treatment of but a single item of charge.

Second. Experience of systems of actual expenses has shown that the authorities have invariably been obliged, sooner or later, to dispense with itemized accounts, and arbitrarily fix a measure of actual expenses, on a basis of time or distance, which is practically a mileage system. This is owing to the fact that different men take diverse views of what constitutes actual *necessary* expenses, and of the moral obligation to conform to an order which assumes to prescribe what shall be alone regarded as items of such expenses. Hence, persistent effort on the part of many to obtain re-imbursement of expenses not authorized in orders, and to remove certain restrictions, and in some cases to include unauthorized items in charges for others authorized, and which may have exceeded, in amount, the actual outlay thereunder. Contingent allowances become subject of common charge, without reference to the existence of the conditions to which they were specially attached. Gradually the system becomes one of such abuses that refuge is taken, as above stated, in mileage, or a like system of a uniform measure of allowances.

Third. The foregoing suggests plainly enough how unequally a system of "actual expenses" operates upon different men, and to what extent it tends to demoralization.

Fourth. Mileage charges are easily computed, quickly paid, and readily scrutinized. A mileage allowance, therefore, forms the most convenient system of re-imbursement of travel expenses. The experience of officers will sustain the statement that on the average of the whole period of service, it is no more than a re-imbursement of actual expenses, and is uniform in its operations upon all.

Fifth. The debate upon the provision of "actual expenses" in the act making appropriations for the support of the Army for the fiscal year ending June 30, 1875, clearly shows that it was based on the understanding that the charge made in the House of Representatives, to the effect that constructive mileage was paid to Government officials, applied equally to officers of the Army. I challenge the proof of a single case in which mileage has been paid to an officer of the Army for other than actual travel under competent orders.

The allowance and payment of mileage to officers of the Army is so hedged about that there can be and were no abuses of it which are not inseparable from any allowance based upon orders issued at the discretion of men. Therefore I earnestly recommend a return to the system of mileage as better fitted to do justice to the officer and to the Government.

I desire to call attention to the proviso attached to the first section of the act of April 20, 1874, (vol. 18, page 33, Statutes,) providing for a system of inspection of disbursements made by disbursing officers of the Army, which says "that no officer so detailed shall be in any way connected with the department or corps making the disbursement."

I do not suppose that it was really the intention of this law to prevent chiefs of staff in this city, or any chiefs of disbursing branches of the staff in the field, from looking at will into the transactions of the Department. The object was doubtless to secure certain regular inspections by officers detailed for the purpose. Otherwise, the effect of this law would be to destroy vigilance and proper supervision on the part of those placed immediately in charge of such branches of the staff. Therefore, I recommend a modification of said law, thus calculated, if literally construed, to do injury to the service. Chiefs of the staff corps, and chiefs in any branch of the staff in the field, or in the various military departments, should always be, *ex-officio*, inspectors of those officers under their supervision. My predecessor very properly enjoined upon chief paymasters the exercise "of careful vigilance and scrutiny in reference to the public funds," which was reiterated in my first circular, No. 82, of January 25, 1872, on taking charge of this office; and inspections are a necessary adjunct of such scrutiny. But my circular provided that "inspections requiring travel will only be made under the orders and in the discretion of the department commander." It is true that inspections should also be made by those not belonging to the corps making the disbursement. Both kinds of inspections are essential to the public service.

It is probably my duty to refer to the onerous working of the act of February 2, 1872, (sections 3646 and 3647, Revised Statutes,) providing for the payment of duplicate checks of disbursing-officers. I recommend that it be changed so as to conform to commercial usages in reference to giving such duplicates. It is a hardship for an officer or a discharged soldier to wait six months for payment, as often the loss is from an accident, such as a fire or a shipwreck, "seen and known of all men." The limit to checks under $1,000 is calculated to deter the cashing of checks of large amounts, whereas at many remote posts we have been forced, for the sake of economy and promptitude, to resort to raising funds in that mode. If a check for many thousands is lost in remittance, how can the bank or the commercial house be expected to wait patiently six months, without interest, before it can get a duplicate? This would force a paymaster to assume to issue the check on his own private indemnity, outside the terms of the law, which is a risk and responsibility that the very passage of the act of February 2, 1872, acknowl-

edges should be assumed by the Government. If it is cheaper to the Government to raise money by exchange than to send it by express from the Treasury, it would seem to be but a legitimate part of the public business to give for the same duplicate checks promptly, when proper security is given. That no such question of loss of large checks has been presented to this Office, shows the regularity and certainty of the mail and express facilities of the country. But any day an accident may occur, which would vividly force the matter on our attention.

Respectfully submitted.

BENJ. ALVORD,
Paymaster-General, United States Army.

The honorable the SECRETARY OF WAR.

REPORT OF THE CHIEF OF ENGINEERS.

OFFICE OF THE CHIEF OF ENGINEERS,
Washington, D. C., October 18, 1875.

SIR: I have the honor to present for your information the following report upon the duties and operations in the Engineer Department during the fiscal year ending June 30, 1875:

OFFICERS OF THE CORPS OF ENGINEERS.

The number of officers holding commissions in the Corps of Engineers, United States Army, at the end of the fiscal year, was 108 on the active list, and 5 on the retired list; the latter, however, under the law of January 21, 1870, not being available for duty. In the duties devolving upon the corps by law, and its organization, the employment of a number of scientists and assistant engineers has been necessary.

Since my last report the corps has lost by death one of its distinguished officers, Lieut. Col. John G. Foster, who died at Nashua, N. H., September 2, 1874. His services during the late war, from the memorable operations at Fort Sumter to the closing scenes of the war, are well known, and will form part of the history of our country.

On the 30th of June, 1875, the officers were distributed as follows:

On duty, office of the Chief of Engineers, including chief	4
On duty, projection and construction of fortifications	6
On duty, construction of fortifications and light-house duty	2
On duty, construction of fortifications, and river and harbor works, and surveys for same	21
On duty, construction of fortifications and river and harbor works, and light-house duty, and surveys for same	4
On duty, construction of river and harbor works, and surveys for same	14
On duty, construction of river and harbor works, and light-house duty, and surveys for same	6
On duty, survey of northern and northwestern lakes	6
On duty, explorations of country west of one hundredth meridian	3
On duty with battalion of engineers	11
On duty, public buildings and grounds, District of Columbia	1
On duty under Board of United States Executive Departments, collecting and arranging articles pertaining to Engineer Department for the International Exhibition, 1876	1
Suspended	1
On sick-leave	1
Detached, on duty with the General of the Army, generals commanding divisions and departments, light-house establishment, Military Academy, survey of northern boundary-line under Department of State, superintendent of the United States Naval Observatory, and the board of commissioners of the District of Columbia	23
Recent graduates of the Military Academy on leave of absence	4
Total	108

The officers detached were on duty as follows:

Col. I. C. Woodruff, engineer third light-house district	1
Lieut. Col. William F. Raynolds, engineer fourth light-house district	1
Lieut. Col. R. S. Williamson, engineer twelfth light-house district	1
Maj. O. M. Poe, on staff of the General of the Army	1
Maj. F. Harwood, engineer fifth light-house district	1
Maj. P. C. Hains, engineer-secretary to the Light-House Board	1
Maj. G. L. Gillespie, on staff of Lieutenant-General commanding military division of the Missouri	1
Capt. William Ludlow, on staff of commanding general Department of Dakota	1
Capt. William A. Jones, engineer sixth light-house district	1
Capt. William S. Stanton, on staff of commanding general Department of Platte	1
First Lieut. E. H. Ruffner, on staff of commanding general Department of the Missouri	1
First Lieut. J. C. Mallery, on staff of major-general commanding military division of the Pacific	1
First Lieut. R. L. Hoxie, chief engineer of the District of Columbia, under the direction of the board of commissioners	1
Capts. William J. Twining, J. F. Gregory, and First Lieut. F. V. Greene, on duty under Department of State, upon joint commission for the survey of the boundary-line along the forty-ninth parallel	3
First Lieut. E. W. Bass, on duty under the superintendent of the United States Naval Observatory in connection with observation of the transit of Venus	1
Capts. C. W. Raymond, A. M. Miller, T. H. Handbury; First Lieuts. J. G. D. Knight, S. E. Tillman, and C. F. Palfrey, on duty at the Military Academy	6
Total	23

The following principal civil engineers and geologists were employed on the 30th of June:

General J. H. Wilson, member of board of engineers upon improvement of the Des Moines and Rock Island Rapids, and improvement of the Illinois River; Clarence King, geologist, in charge of geological exploration of the fortieth parallel; and S. Thayer Abert, in charge of river and harbor improvements on Potomac River and Chesapeake Bay.

SEA-COAST AND LAKE-FRONTIER DEFENSES.

The work now in progress upon our sea-coast defenses consists exclusively in the construction of powerful earthen barbette batteries, for guns of the heaviest calibers, which batteries are either exterior to, and supplementary to the older casemated works, or are modifications and enlargements of the barbette batteries of former times.

The principles governing the system of fortifications now in progress, are those laid down in 1869, (See Ex. Doc. No. 271, House of Representatives, Forty-First Congress, second session,) which received the approval of the Chief of Engineers, the General of the Army, and the Executive, and have met with repeated approval from Congress.

These earthen barbette batteries, with massive parapets, traverses on either side of each gun, and strong parados where needed, will furnish (with a depressing gun-carriage) the greatest protection for the armament and cannoneers that can be obtained outside of iron casemate constructions.

The work during the past year has progressed in a satisfactory manner, and, as during the last year and several years preceding, the appropriations have been mainly confined to the larger and more important commercial harbors of the seaboard, the works in them have already, quite a large proportion of their positions for guns furnished.

The necessity for the continued preparation of these massive batteries has been presented in the annual reports of this Department from year to year. Their size, the weight of their armaments, and the time required for their completion, form the reasons why these works must be prepared in advance, and not upon the advent of war.

Among the accessories for the defense of our harbors and the channel-ways leading to them are torpedoes, or sea-mines, planted across the channels, and in such numbers as to bar the entrance of the enemy's vessels and hold them under the fire of the batteries. This subject has received very careful attention, and is reported upon quite in detail in the body of this paper. The system we have perfected is believed to possess every quality requisite for success, when the torpedoes are planted and handled by men trained in its details.

To continue the purchase and storing of such portions of our torpedo materials as cannot be speedily obtained in the event of war, the sum of $150,000 is asked.

The progress made and anticipated upon the works on the coasts is given in detail in the following portions of the report.

The estimates submitted, based upon the several estimates of the officers in charge, which have been carefully revised, present the amounts which, in the judgment of the Engineer Department, are necessary for the completion, continuance, or commencement of projects for the coming year.

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BOARDS OF ENGINEERS.

The Board of Engineers for Fortifications, stationed in New York City, consisting of Col. J. G. Barnard, Col. Z. B. Tower, and Lieut. Col. H. G. Wright, and, for the time being, the officer in charge of the defenses under consideration, has, during the past fiscal year, been chiefly engaged upon plans for the defense of New London Harbor; upon the revision of a project for a battery at Point Diablo, California; upon the revision of plans for barbette batteries generally, and of the unfinished batteries at Alcatraz Island; upon the revision of the plans for batteries at Mobile Point; upon the revision of plan for the defense of New Bedford Harbor; upon a project for Fort Lafayette, New York Harbor, in which iron shall form a part of the casemated construction; in the revision of plans for the fortifications of the harbor of San Francisco; upon a project for defenses at the mouth of Savannah River; upon plans for the torpedo defense of the harbor of New York and of Delaware River, and of the harbors of Key West, Boston, Portland, Baltimore, Portsmouth, Charleston, Newport and Dutch Island, New London, and the Potomac River below Washington; and upon the programme for torpedo target-experiments.

In addition to the duties immediately connected with the board, the individual members have been called upon during the year to serve as members of boards for the consideration of various subjects of construction and improvement connected with the service.

TORPEDO-DEFENSE.

The trials designed to develop the best system of submarine defenses for our harbors have received close attention during the past year, although interrupted by the necessary absence of the executive officer and another member of the board on the Mississippi River commissions.

These trials have been directed partly to the perfecting of the details of the apparatus and material, and partly to investigations designed to determine, in a thorough and yet economical manner, the laws which limit the effective range of subaqueous explosions.

The great differences in tidal currents and tidal oscillation which exist between our harbors render it advisable to make corresponding varia-

tions in our torpedo-cases and buoys. To insure this being done in a satisfactory manner, an elaborate system of observations was conducted at Hell Gate, in October last, to deduce a practical formula for computing the buoyancy requisite in currents of different velocities. Torpedoes of various patterns were planted in the channel, in 50 feet water, and the depressions at the varying stages of the tidal flow, with the corresponding velocities of the latter, were carefully measured. Between four and five hundred observations were made, in currents ranging from slack water to five miles per hour, and, after a careful discussion, Major Abbot has framed a formula which represents in a satisfactory manner the relations between the buoyancy, the area of cross-section, the form of the surface, the velocity of the current, and the angular depression of the torpedo. We are thus prepared to fix the dimensions of torpedoes suited for any given harbor, in a manner which equally avoids undue expense from excessive size and undue depression from deficient buoyancy.

Experiments to test the strength of the adopted patterns of buoyant and ground mines to resist the explosions of neighboring torpedoes have been terminated with satisfactory results; trials have also shown that no danger of detonating a charge of our dynamite by the shock of firing a neighboring mine need be feared. These results were obtained with a distance between the mines which is sufficiently small to render it easy to bar the channel against an enemy. As to endurance, torpedoes have been kept for a year and more submerged in the channel at Willet's Point, and in no single instance has the adopted pattern failed to remain in a serviceable condition.

The tests of our insulated cable in store continue to be all that can be desired. A multiple cable, which was laid across the channel from Fort Schuyler to Willet's Point over a year ago, has remained without injury, although it has twice been fouled by anchors and severely strained. All the cable now on hand is stored in the permanent casemates built for its reception at the engineer depot at Willet's Point.

Experiments with the electric-light have been continued, and a new lens and reflector, planned upon the results obtained, is now under construction. In clear, dark nights this light forms an important auxiliary in protecting the mines against boat-attack, but in fogs and also in bright moonlight it appears to be of little utility.

Various forms of battery—the Leclanché, a modified Smee—the Chrome lead, a Walker remodeled into a Leclanché after the mode adopted by the English engineers, the Byrne bichromate battery, a new form of single-fluid battery, and several others, have all been subjected to careful measurement and trial. The result is confirmatory of the conclusions announced last year, that for firing purposes the Leclanché is superior to any other. A firing-battery, set up more than a year ago and not renewed since that time, shows hardly an appreciable deterioration, while a signal-battery in use for three years has only required occasional additions of water.

A new arrangement, by which the electric-cable is made to take the place of the wire mooring-rope for buoyant mines and buoys, has been devised, and is now under trial, with good prospects of success, where the currents are not very strong.

Marked improvement has been made in our cut-offs; and a new form of cut-off box has been devised, which appears to fulfill all needed requirements. It is now under trial.

New and improved forms of junction-boxes have been devised and provisionally adopted, while further experiment has confirmed the favor-

able reports already made upon the circuit-closer, the automatic operating apparatus, the fuzes, and the other details of the system.

In explosives, comparative trials have been continued to determine the merits of various new forms lately introduced, such as mica-powder, &c. None equal to dynamite has been tested.

To properly apply this, or any other torpedo system, involves two conditions:

1. To so plan the location of the mines as to render it reasonably sure that no vessel can pass without coming within the destructive range of one or more mines.

2. To have in readiness a sufficient force of trained men to plant the mines, according to the plan, with promptness and accuracy, and to operate the system when in position. Each of these conditions will be considered in turn.

The first involves a knowledge of the proper charges for the mines and of their destructive range. For several years an elaborate series of trials has been in progress at Willett's Point to throw light upon these points.

Apparatus has been devised to register the force exerted by torpedoes charged with different explosive substances, both in their near vicinity and at various distances, both horizontally and vertically. For the near vicinity use has been made of strong iron rings surrounding the charge, and bearing gauges designed to record the effect of the explosions. For greater distances an iron frame, 50 feet by 10 feet by 10 feet, has been employed. The charges are exploded centrally, and the effects are registered upon gauges firmly attached to the angles. From eight to thirty-eight records are thus secured at every shot. Several hundred shots have been thus measured, and by a preliminary discussion Major Abbot has framed a formula which accords remarkably with the results of experiment, and thus affords grounds for believing that by it a practical idea may be formed of the relative forces exerted by any explosion at any distance. It still remains to determine, by actual experiment, the force required to rupture the hull of a standard type of war-vessel, to enable us to generalize the results of the whole investigation, and thus to definitely fix the destructive range of any given charge.

During the past year the trials have been especially directed to the last stage of the investigation, viz, to determining the force requisite to inflict a fatal blow upon a first-class iron vessel of war, provided with a double cellular bottom of the most approved type. To do this, two torpedo targets were provided two years ago; but, owing to various causes, the experiments have been necessarily deferred to the present year.

The first target was of wood, and was simply designed for preliminary trial. It consisted of a raft of timber—oak and spruce in equal proportions—which was 15 feet by 15 feet by 2 feet. It was bolted together by through-irons in the strongest manner, and carried eight gauges. Finding that it did not oppose sufficient weight to the blows, the plan was tried of anchoring it down by heavy mushroom anchors, with the cables, which made an angle of about 45° with the water surface, crossed and knotted over the top. Taking advantage of the tide to bring these cables taut, no further difficulty was experienced, and the target, after being somewhat weakened, was finally torn asunder by a charge of 10 lbs. of dynamite, hung 10 feet below its middle point.

The second target was of iron, 20 feet by 20 feet by 3 feet. It was designed to represent the bottom of a first-class iron-clad, due allowance being made for its smaller size. It was divided into compartments, 4 feet by 4 feet, by stout angle-frames, and was made of iron of a quality

superior to any used in actual ship-building. Three shots have been fired already, the target being securely held down by sixteen one-thousand-pound anchors, in the manner above described. The last shot, which consisted of thirty pounds of dynamite, hung 30 feet below its middle point, bent the bottom plates sharply over one of the frames, the maximum indentation being about 4 inches, and broke the frame itself in two. In consequence of a small leak thus made the target sank; but it has been raised, and is now undergoing repairs preparatory to further trials. This target carries sixteen gauges, and, it is believed, will furnish needful data for determining the proper charges for our torpedoes, with the corresponding effective ranges.

Continuing, during the year, the study of our harbors, with a view to applying submarine mines to their defense, the board has submitted projects for five of them, and has made good progress with ten more.

Major Abbot has continued the preparation of the torpedo manual, and has advanced so far as to use portions of it in the instruction of the battalion of engineers in their torpedo duties.

The collection and storage of torpedo material at the Willet's Point depot is progressing in a satisfactory manner.

So far, then, as the system itself, and the plans for its application to our harbors, and the preparation of the necessary articles which could not be provided in a brief time at the beginning of a war, are concerned, the service is in a satisfactory condition of progress. Respecting the *personnel* upon which it must depend for applying it to our harbors, it is to be said that this duty, as in Great Britain, has been assigned to the engineer troops; but the present authorized strength of the battalion of two hundred men will not admit of more than one hundred and twenty-five being stationed at the torpedo school where they can receive instruction, a number quite inadequate to the performance of the duty intrusted to them, for many harbors must be simultaneously prepared for defense on the breaking out of war.

The requirements of this service are of a high order, and exact some mechanical skill and far more education than would probably be found among the enlisted men of any other arm; and experience teaches us that it would be impracticable to instruct newly-raised troops in its numerous and delicate details in the brief time available for putting the torpedo defenses in position, ready for use, upon the approach of an enemy to our coasts. With the small trained force now available, our large sea-ports would be exposed to great danger from a powerful maritime enemy.

Convinced that none but trained soldiers can be used in torpedo operations, it is earnestly recommended that the battalion of engineers be increased to a minimum peace organization of 520 men, that number being requisite for an efficient condition of the torpedo defense of the harbors of the United States, stretching as they do along a sea-coast frontier of twelve thousand miles. These views are in concurrence with those of the board of engineers for fortifications. Upon this subject Major Abbot, commanding the engineer battalion and torpedo school, remarks:

> The torpedo service is not like that of troops in line of battle, where any blunder by a private is quickly seen and corrected by his officers. There are many small details which must be intrusted to the individual soldiers; errors might be covered up in the progress of the work, and it is only when the mine is planted that they can be detected; and then hours of precious time must be lost in taking the group from the water to correct some little mistakes which, with trained men, would never occur. Experience with newly-enlisted men at the torpedo school constantly confirms these views. Thoroughly impressed, therefore, with the absolute necessity for trained soldiers

in torpedo operations, I feel it incumbent upon me to invite attention to the need of provision for a proper organization.

The following considerations have a bearing upon the subject: Torpedoes are planted by grand groups of 21 mines. To do this properly, requires 3 non-commissioned officers and 23 instructed privates of engineers, and about 40 boatmen, laborers, &c., which it is assumed could be hired in any of our sea-ports to do the parts of the work requiring no particular knowledge or skill. In important harbors and in times of haste, several grand groups could and should be planted simultaneously; but to arrive at the lowest judicious organization, 26 enlisted men of engineers will be assumed for each separate channel to be defended. There are 30 such channels in the United States which would call for immediate defense. The minimum force then would be $26 \times 30 = 780$ effective soldiers. The legal war organization of the engineer battalion consists of five companies of 150 men each, or 752 men, including 2 staff sergeants. Evidently, therefore, for reasonable efficiency, the full strength should be maintained. Allowing, however, one-third as the maximum safe reduction below this estimate for a peace organization, and we have 520 men who must be kept thoroughly instructed and always available. Considering that in war time these men would be scattered along the whole sea-coast, these engineer troops, besides their duties with torpedoes, must be ready at any time to act as sappers and miners and pontoniers, and to make reconnaissances, and photograph maps with troops in the field; and, finally, that they are equally as available as other soldiers in any sudden emergency occurring in a time of peace calling for a military force, and it would appear that a minimum peace organization of 520 men should be maintained. This number is but little more than one-quarter of the police force of New York City, and is certainly very small compared with the enormous interest intrusted to it—the torpedo defense of the harbors along the whole coast of the United States.

For continuing the purchase of such parts of the torpedo apparatus and material as cannot be suddenly obtained in time of war, an amount of $150,000 is needed, the appropriation for which is respectfully recommended.

The Board of Engineers for the Pacific coast has consisted during the fiscal year of Lieut. Col. B. S. Alexander, Lieut. Col. C. S. Stewart, and Maj. Geo. H. Mendell. These officers have been occupied most of the time during the year on other duties than those relating to the functions of the board of engineers: Lieutenant-Colonel Alexander as a member of the commission for the improvement of the mouth of the Mississippi River, and Lieutenant-Colonel Stewart and Major Mendell on the works of defense and those of river and harbor improvements on this coast committed to their charge.

The board has reported upon the application of the park commission of San Francisco for permission to quarry stone on Angel Island, and has considered, to some extent, the possibility of adding to the defense of the harbor of San Francisco by torpedoes, and the means by which the San Diego River can best be turned from San Diego Harbor into False Bay.

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RIVER AND HARBOR IMPROVEMENT.

It appears proper that I should take this opportunity of correcting an erroneous impression that seems to prevail concerning the use of jetties in this country in improving the channels at the mouths of rivers.

It was recently stated, without contradiction, in a discussion upon the improvement of river-mouths, during official proceedings of the Government, that neither the United States Government nor private parties in this country had made use of jetties for such purposes, while in Europe that system of improvement had been in successful use for fifty years. The cases adduced in support of this statement were the improvement of the entrance to certain rivers and inlets on the tideless, nearly fresh-water, inland seas of Europe, that is, the Baltic and Black seas.

The great lakes, our inland fresh-water seas, were singularly destitute of natural harbors, and, as population began to spread along their shores, more than fifty years ago, the United States Government commenced a system of harbor-improvement, by opening the mouths of the rivers and inlets on the lakes by the construction of jetties, and, by that system, has created some forty harbors, in which the vast commerce of the lakes is carried on, and without which that commerce could not exist.

The Engineer Department of the United States has accomplished even greater results on the lakes than have been obtained on the Baltic and Black seas; for it has constructed a greater number of harbors than the Europeans have, and the gain in depth at the entrances has been substantially as great as the gain in depth in European entrances. The depths of our harbors can be increased still further.

The improved harbors of Europe in the Baltic and Black seas, including the Sulina mouth of the Danube, had bars nearly identical in character with those of our harbors on the lakes.

We have not copied from the European engineers, but our projects have been based upon certain well-established principles and a careful ascertainment of the conditions existing at the mouths of the rivers and inlets to be opened or improved. The plans have proved to be eminently successful, and where, in the natural condition of the river-mouth or inlet, not even the smallest sloop or shallop could enter, steamers of 1,500 and 2,000 tons now pass daily.

The government engineers of France, at least, are well acquainted with these facts, even if those of no other European State are.

The last annual report gave the condition of the several public works on rivers and harbors at the close of the fiscal year 1873–'74, and the character and extent of improvement proposed to be made at each locality, with such balance as remained of the appropriation of March 3, 1873, together with the amounts made available by the appropriation act of June 23, 1874. This latter act made provision for one hundred and thirty-eight separate and distinct works, and appropriated sums varying from $1,500 to $400,000, amounting in all to $4,918,000.

During the past session of Congress provision was made in the river and harbor appropriation act, approved March 3, 1875, for continuing public works on rivers and harbors at one hundred and fifty-three different localities, the total amount appropriated being $6,538,500.

With the amounts thus made available for improvements heretofore authorized, operations have been continued in accordance with approved projects. In the case of new appropriations the necessary preliminaries were commenced for putting into execution the specified works of improvement, and, as far as practicable, the constructions are now in progress. These preliminaries involve a careful examination of project and detailed plan, and in the more important cases a reference to a board of engineers for revision and recommendation. In some cases the purchase of sites, for which the cession of jurisdiction by the State is necessary, and the examination and approval of title to the land previous to its purchase, together with the advertisement for proposals and award of contract, consume much time and cause delay in commencing active operations at the site.

Below will be found, under the head of each improvement, a brief account of work accomplished during the past fiscal year, and condition of the improvement on June 30, 1875, together with a money statement, giving the amount expended during the year, amount available July 1, 1875, and amount that can profitably be expended during year ending

June 30, 1877. For more detailed information in regard to each improvement reference should be made to the reports of the officers in charge, which are respectfully submitted, and form part of the appendix to this report, taken in connection with the last and preceding annual reports.

With but few exceptions all the examinations and surveys of rivers and harbors, with a view to their improvement, directed to be made by the act of June 23, 1874, and specified in the second section, were completed, and the results submitted during the last session of Congress. These, together with those since received, are now submitted, and may be found in the appendix.

It is expected that the results of the examinations and surveys required by the second section of act of March 3, 1875, will be received in time to be submitted before the close of the next session.

It may be well to remark that the amount of the appropriation is quite inadequate for the purposes of survey, upon which alone can be based projects for improvement, with accurate and detailed estimates of cost.

Transportation routes to the seaboard.—The act of June 23, 1874, directed that surveys be made, and estimates submitted, for the improvements recommended by the Senate Select Committee on Transportation-Routes to the Seaboard, upon certain routes indicated by the committee, and also upon the extension of the Chesapeake and Ohio Canal.

Before the close of the last session of Congress a portion of these surveys were completed, and estimates were submitted.

Upon the receipt of each report, whether upon an entire route, or any subdivision of it, the report, with approximate estimates of cost of improvement, was submitted by the Secretary of War to Congress and printed, forming a series of executive documents. These, together with such reports as have since been received, are transmitted herewith.

The amount appropriated for these surveys was not sufficient for obtaining such exact data and information as were desirable for the preparation of projects for improvements and estimates of cost, on lines of so great extent and involving the construction of works of such magnitude.

Should it be deemed desirable to continue these surveys and examinations, an additional appropriation of $100,000 is respectfully suggested. It may be well to remark that while the original estimate was $324,000, the amount appropriated was $200,000.

Mouth of the Mississippi River.—The report of the Board of Engineers constituted by the third section of the river and harbor act of June 23, 1874, for the purpose of making "a survey of the mouth of the Mississippi River, with a view to determine the best method of obtaining and maintaining a depth of water sufficient for the purposes of commerce, either by a canal from said river to the waters of the Gulf, or by deepening one or more of the natural outlets of said river," &c., was submitted to Congress, and printed, during the last session, forming Executive Document 114, parts 1 and 2, House of Representatives, 43d Congress, 2d session.

The Board was composed of the following members, viz: Lieut. Col. H. G. Wright, Corps of Engineers, president; Lieut. Col. B. S. Alexander, Corps of Engineers: Maj. C. B. Comstock, Corps of Engineers; Professor Henry Mitchell, U. S. Coast Survey; T. E. Sickels, civil engineer; W. Milnor Roberts, civil engineer; H. D. Whitcomb, civil engineer.

Improvement of the South Pass of the Mississippi River.—Section 4 of the river and harbor act of March 3, 1875, authorizes, on certain conditions, Mr. James B. Eads, of St. Louis, Missouri, with such others as

may be associated with him, to open a wide and permanent deep channel between the Mississippi River and the Gulf of Mexico through the South Pass, payments for constructing the works and securing and maintaining the increased depths to be made on certified statements of an engineer officer detailed by the Secretary of War, whose duty it shall be "to report the depth of water and width of channel secured and maintained from time to time in said channel, together with such other information as the Secretary of War may direct," the intent of the act being, it is stated, "not simply to secure the wide and deep channel first above named, but likewise to provide for the construction of thoroughly substantial and permanent works, by which said channel may be maintained for a time after their completion."

Under the provisions of this act, Maj. C. B. Comstock, Corps of Engineers, was detailed, on the 8th April, by order of the Secretary of War, for the performance of the duties prescribed for the engineer officer, and Lieut. C. E. L. B. Davis, Corps of Engineers, was detailed to aid him. Mr. Eads was duly informed from the Adjutant-General's Office of this detail.

In compliance with instructions from this Office, Major Comstock submitted an estimate of the cost of the examinations and surveys required to make the necessary reports for the fiscal years 1876 and 1877.

For the present fiscal year the amount required is $16,656, the appropriation of which sum is recommended to be made at the earliest day practicable after the meeting of Congress, no provision for the performance of this duty having been made.

For the fiscal year ending June 30, 1877, the sum of $13,342 will be required, the appropriation of which, in the river and harbor bill, is recommended.

In compliance with the request of the Hon. Mr. Bogy, Senator from Missouri, he was furnished, for the use of Mr. James B. Eads, with full-scale copies of the drawings relating to the improvement of the South Pass of the Mississippi River by jetties, which accompanied the report (January 13, 1875,) of the Board of Engineers, provided for by act of June 23, 1874.

These drawings exhibit the dimensions and manner of constructing the jetties recommended by the board for the South Pass, and formed the basis of the estimate of cost submitted by them, which estimate was adopted by Congress as the amount to be paid Mr. Eads.

Upon the application of Mr. Eads to be secured in the use of materials on the public lands along the passes and in the neighborhood of and above the passes, he was authorized under the act to use them, and was furnished with a list of all vacant public lands bordering the passes and extending twelve miles on both sides of the river above the passes, which vacant public lands, he was informed, would be reserved by order of the President, from sale and entry.

Regulations for the use of materials on the public lands suitable for and needed in the construction of the works of improvement, were duly prescribed by the Secretary of War, in conformity to the provisions of the river and harbor act, and published. The general supervision of all matters properly pertaining to the grant was assigned to Major Comstock. A copy of the regulations is herewith.

Major Comstock having requested, in an explanatory letter herewith, that the meaning of the phrase "*average flood-tide*," from which the measurement of depths fixing payments is to be made, might be defined, he was informed, with the approval of the Secretary of War, that "the intent of the law being to secure at all times at the head of South

Pass the same depths as are required to be maintained at the bar or mouth of the pass, the average to be adopted should be that derived from the flood-tides occurring during the stage of river when its volume is least; that is, the average flood-tide should be determined by excluding the effects of variations in the river-discharge."

On the 8th June Mr. Eads informed the Hon. Secretary of War, by letter, that he would soon commence the construction of the jetties.

On the 26th June Mr. Eads informed the Secretary of War, by letter, that under the authority of the act of March 3, 1875, he commenced, on the 14th June, the construction of works at the bar of the South Pass, and that the provisional works for the construction of the east jetty had already been extended one thousand feet from the land's end, and were being pushed forward at the rate of two hundred feet per day. Major Comstock was duly advised.

The results of the survey of the South Pass and Bar, provided for in section 4 of the river and harbor act, were received at this Office from the Superintendent of the Coast-Survey on the 21st August. Copies of them were prepared and submitted to the Secretary of War, on the 28th and 30th August, and were immediately transmitted from the War Department to Mr. Eads.

In the latter part of August, Mr. Eads requested that his contractors for lumber might be authorized to cut ten thousand trees on the public lands of the United States, in the counties of Hancock, Pearl, and Marion, in the State of Mississippi, and in the parishes of St. Tammany and Washington, in the State of Louisiana. This request was submitted to the Hon. Secretary of War, with the recommendation that the paper be referred to the Hon. Secretary of the Interior for his views as to whether the public interests, so far as they related to the value of the public lands of the United States, would justify the conveyance of the authority asked for. No objection being made in the Interior Department to granting the authority applied for, Major Comstock was authorized, as soon as the reply from the Interior Department was received, to grant the request, he taking precautions to prevent its abuse.

The report of Major Comstock upon the progress made by Mr. Eads in the improvement of the South Pass up to September 25 is appended hereto. It gives briefly a clear description of the exact character of the works, their progress, the materials used, and the degree of permanence with which the jetties are being constructed.

Alluvial Basin of the Mississippi River.—The "commission of engineers to investigate and report a permanent plan for the reclamation of the alluvial basin of the Mississippi River subject to inundation," provided for by the act approved June 22, 1874, having completed the investigation, submitted a report, which may be found printed in Executive Document 127, House of Representatives, 43d Congress, 2d session.

The commission was composed of the following members, viz: Maj. G. K. Warren, Corps of Engineers, president; Maj. H. L. Abbot, Corps of Engineers; Capt. W. H. H. Benyaurd, Corps of Engineers; Jackson E. Sickels, civil engineer; Paul O. Hébert, civil engineer.

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IMPROVEMENT AND CARE OF THE PUBLIC BUILDINGS AND GROUNDS IN THE DISTRICT OF COLUMBIA—WASHINGTON AQUEDUCT.

Officer in charge, Col. O. E. Babcock, Corps of Engineers.

The condition of the public reservations in the city of Washington and of the aqueduct for supplying the cities of Washington and George-

town with water, and the character of the improvements made on them during the fiscal year, will be found in the detailed report of the officer in charge.

The new bridge across the Eastern Branch of the Potomac, for which provision was made in the act of Congress of June 22, 1874, is finished and opened to the public.

The estimates for the fiscal year ending June 30, 1877, are as follows:

For improvement and care of the public buildings and grounds	$391,670 00
For compensation to persons employed on and around public buildings and grounds	56,276 00
	447,946 00
For the Washington Aqueduct	266,528 00

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MILITARY MAPS.

It was mentioned in my last annual report that the engraving of the topographical features of the battle-field of Gettysburg had been finished, and that an agreement had been entered into with Mr. J. B. Bachelder for furnishing from it a series of sheets showing the positions of the opposing armies on the 1st, 2d, and 3d of July, 1863. The preparation of these maps is still in progress, and it is hoped they may be issued during the current fiscal year.

In this Office:

Of the series of Atlanta-campaign maps which have been commenced, Sheet No. 4 has been completed and printed. Sheet No. 1 has been finished. Sheet No. 3 has been nearly completed; and on Sheets Nos. 2 and 5, some progress has been made.

A map of the siege of Atlanta on a scale of 2 inches to the mile has been commenced, and considerable progress has been made upon it.

A map of the approaches and defenses of Knoxville, and a map of the battle-field of Chattanooga have been prepared and published.

A map of the marches of the forces under the command of General Sherman in 1863, 1864, and 1865, also maps of the battle-fields of Franklin, Tenn., and South Mountain, Md., are now being re-produced by photolithography, to replace the editions of these maps which were accidentally destroyed by fire.

A proof of a map of the battle-field of Chickamauga is now being revised preparatory to photolithographing and printing.

A map of Florida has been reprinted and published.

A new edition of a map of the Territory of Wyoming, in the Military Department of the Platte, has been printed and published.

A map of Kansas, Texas, and the Indian Territory, corrected to 1874, has been engraved and re-published.

A map of the Missouri River from Fort Benton to the Three Forks has been printed and published.

Three maps of the Black Hills of Dakota, (one a geological map,) to illustrate a report of Captain Ludlow of his reconnaissance with troops under command of Lieutenant-Colonel Custer, in the summer of 1874, have been printed and published.

A map of New Mexico by Lieut. C. C. Morrison, Sixth Cavalry, has been photolithographed and printed.

A map of Nebraska and Dakota, by Lieut. G. K. Warren, of his explorations in 1855, '56, and '57 has been photolithographed and reprinted.

A map of the Yellowstone River, from the mouth of Powder River to the head of navigation, has been photolithographed and printed.

A Lake-Survey map of Sandusky Bay has been engraved, printed, and published.

Lake-Survey charts of Lake Saint Clair and No. 1 of the River Saint Lawrence are now in the hands of the engraver.

Lake-Survey chart No. 2 of the River Saint Lawrence is now in the hands of the photolithographer for a preliminary in advance of an engraved edition.

The following-named maps illustrating the military operations during the war, have been prepared for publication and are now in the hands of the photolithographer for printing:

Map of Augusta County, Virginia.
Map of Rockingham County, Virginia.
Map of Shenandoah, Page, and Warren Counties, Virginia.
Map of Rappahannock County, Virginia.
Map of Greene County, Virginia.
Map of Madison County, Virginia.
Map of defenses of Charleston City and Harbor, South Carolina, (re-publication.)
Map of Fort Sumter, South Carolina, (re-publication.)

Contracts have been entered into for photolithographing and printing the following maps:

Map of explorations of Capt. J. H. Simpson in Utah, in 1859.
Map of explorations of Capt. J. N. Macomb in New Mexico, in 1859.

Also for photolithographing and printing the following maps, illustrating operations of the late war:

Map of the battle of Roanoke Island.
Map of the Upper Potomac.
Map of the battle of Drainsville.
Map of the operations of the Army of Virginia under General Pope.
Map of Williamsport, Hagerstown, and Falling Waters.
Plan of Fort Donelson and outworks.
Map of the country between Forts Henry and Donelson.
Map of Port Hudson and vicinity.
Map of siege operations at Spanish Fort, Mobile Bay.
Map of the country between Milliken's Bend and Jackson, Miss.
Map of the battle-field of Pea Ridge, Arkansas.
Map of the battle-field of Big Black River Bridge, Mississippi.
Map of the battle-field of Carnifex Ferry, Virginia.
Map of reconnaissance in the vicinity of Gauley Bridge, West Virginia.
Three maps illustrating the battle of Fredericksburg, Va.
Map of the battle-field of Williamsburg, Va.

On the 22d of February last an accidental fire occurred in one of the rooms of this Office and destroyed the following maps:

One thousand eight hundred sets of maps illustrating the campaigns of the Armies of the Potomac and James.
Three thousand copies of battle-field of South Mountain.
Three thousand copies of map of General Sherman's marches.
Three thousand copies of the map of the battle-field of Franklin, Tenn.
Five hundred copies of map of Yukon River, Alaska.

GEOLOGICAL EXPLORATION OF THE FORTIETH PARALLEL.

Mr. Clarence King, United States civil engineer, in charge.

Mr. King and his assistants have been engaged during the year, at the office in New York, in the preparation of his report and accompanying atlas. Delayed by the impossibility of getting the necessary paleontological studies sooner completed, the geological portion of the atlas was not put in the hands of the engraver until the end of June, 1875. The topographical portion, however, has gone steadily on, and is now more than half done; the remainder to be finished by December 1, 1875. The main labor of the year, beside the necessary supervision of engrav-

ing, has been in the department of geology, where the chemical and microscopical branches have been most satisfactorily advanced. It is stated by Mr. King that they will form in the forthcoming reports a more prominent part than in any previous geological survey in America. There remains only the consolidation of the report, which it is expected, unless interrupted by some unforeseen cause, may all be in the printer's hands by the end of the coming winter.

GEOGRAPHICAL EXPLORATIONS AND SURVEYS WEST OF THE ONE HUNDREDTH MERIDIAN.

Officer in charge, First Lieut. George M. Wheeler, Corps of Engineers, having under his orders First Lieuts. William L. Marshall, Philip M. Price, and Eric Bergland, Corps of Engineers; First Lieut. William L. Carpenter, Ninth United States Infantry; First Lieut. Rogers Birnie, jr., Thirteenth United States Infantry; First Lieut. S. E. Blunt, Ordnance Corps; Lieut. C. W. Whipple, Third United States Artillery, and Lieut. C. C. Morrison, Sixth United States Cavalry; Acting Asst. Surgs. H. C. Yarrow and J. T. Rothrock, United States Army, who, in addition to their professional duties, were engaged in zoological and botanical labors.

The following scientists have also been attached to the expedition: Dr. F. Kampf and Mr. John H. Clarke, astronomical observers; Messrs. G. K. Gilbert, A. R. Conkling, Jules Marcou, and Douglas A. Joy, geologists; Prof. E. D. Cope and Dr. C. A. White, paleontologists; and Dr. Oscar Loew, mineralogist and chemist.

At the commencement of the fiscal year the main divisions of the survey were about leaving their rendezvous at Pueblo, Colo., for the field of operations in Southern and Southwestern Colorado, Northern and Northwestern New Mexico, and Northeastern Arizona, where connection was made with work of former years in areas represented by portions of atlas sheets 61, 62, 68, 69, 70, 76, and 77. (See progress-map.)

Several primary astronomical stations both near to and remote from the field of survey were determined, in addition to the usual field astronomical observations.

The several parties were disbanded at Pueblo at the close of the field-season in November and December, following which the requisite number of assistants repaired to Washington for the preparation, during the winter months, of results, and where a small force of draughtsmen and computers is constantly employed in the reduction of field-notes.

The field-work of the present season was divided into two sections, the Colorado and the California, and was begun early in June.

A special party intrusted to the charge of Lieutenant Bergland will make a preliminary instrumental survey, with a view to the further and more complete examination of the feasibility of diverting the waters of the Colorado River of the West for purposes of irrigation, and it is hoped that a report and accompanying estimates will be received from the officer in charge of the party in time to be submitted to you early in the coming winter.

Of the six quarto volumes authorized to be published by the act of June 23, 1874, as amended by the act approved February 15, 1875, two are in the hands of the printer, the manuscript of two others is nearly ready, and that of the remaining volumes is in an advanced stage of preparation.

Four published sheets have been added to the topographical atlas, and others are completed and in course of construction.

Proof-sheets of four of the maps of the geological atlas have been received, and four more sheets are ready for the engraver.

So far as compatible with the main objects of the survey, to wit, the preparation of detailed topographical maps and an examination into the resources of the region surveyed, scientists, selected for their fitness to conduct investigations in geology, paleontology, mineralogy, zoology, and botany, are attached to the expeditions, with little increase in cost as compared with the information gained in these subjects.

The topographical maps, which form the chief results of this survey, furnish important information to the different branches of the military service, and other departments of the Government, and to the public. Its regular progress without interruption is earnestly recommended.

The amounts required to continue the survey are estimated by Lieutenant Wheeler as follows:

For continuing the geographical explorations and surveys of the territory of the United States west of the 100th meridian	$95,000
For preparing, engraving, and printing the plates and atlas-sheets accompanying the reports of the geographical explorations and surveys west of the 100th meridian	25,000

RECONNAISSANCES AND EXPLORATIONS.

There are at nearly all the headquarters of the four military divisions and the nine military departments, officers of engineers, whose chief duty it is to collect geographical and other information, and these officers do, by means of their own explorations and surveys, and by collecting the notes, sketches, and maps made by the officers and solders belonging to the western posts, in their scouts and campaigns, add much, year by year, to the knowledge of the interior of the country, which is not only essential to the generals in command of these departments and divisions, but useful to the country generally.

The officers who have been thus serving the last fiscal year are Maj. O. M. Poe, aid-de-camp (with the rank of colonel) to the General of the Army; Maj. G. L. Gillespie, at the headquarters of the Division of the Missouri; Capt. William Ludlow, at the headquarters Department of Dakota; Capt. W. S. Stanton, at the headquarters Department of the Platte; Lieut. E. H. Ruffner, at headquarters Department of the Missouri; and Lieut. J. G. D. Knight until August 12, 1874, and Lieut. J. C. Mallery from October 24, 1874, at the headquarters of the Division of the Pacific.

During the last fiscal year there have been distributed by Maj. H. L. Abbot to officers engaged in surveys, from the Engineer depot at Willet's Point, an aggregate of 118 instruments of various kinds.

Col. O. M. Poe, A. D. C., Major of Engineers, &c., on duty at the headquarters of the Army, has supervised the compilation of a map of the Department of Texas, and a series of maps illustrating the campaigns of the army commanded by General Sherman in 1864–'65; and has also purchased and distributed to military divisions and departments such prismatic compasses, odometers, and drawing-instruments as were required to fill requisitions made upon him from time to time.

Maj. J. W. Barlow to the 14th of July, 1874, and Maj. George L. Gillespie for the remainder of the fiscal year, were on duty with the Lieutenant-General of the Army, commanding the Military Division of the Missouri.

Draughtsmen were engaged in making additions and corrections to existing maps, making compilations of all information relating to the

several departments of the military division received from the engineers of the several departments and other reliable sources, and in making tracings of maps accompanying reports from department commanders and other officers to the Lieutenant-General.

An enlisted man was engaged in making engravings on copper plates of plats of the military posts and reservations in the division. These plats, when finished, are to be embodied in the book of "Outline Descriptions of the Posts in the Military Division of the Missouri," which has been prepared in the office of the Assistant Adjutant-General.

The following work was done during the year in the Office:

Sheets 2 and 3 of the map of western Territories, scale $\frac{1}{2000000}$, were continued and nearly finished, and sheet No. 4 was commenced. Additions were made on the map of the States of Kansas and Texas and Indian Territory A map of portions of Texas, New Mexico, and Indian country, including the Staked Plains, was prepared to show the expeditions of Colonels Mackenzie and Miles and Lieutenant-Colonel Davidson, 1874–'75. Additions were made to Captain Raynolds' map of the Yellowstone and Missouri Rivers, 1859–'60.

Reductions of the following-named plats of military reservations and plans of posts were made for the engraver: Standing Rock agency, Dakota Territory; Camp Sheridan, Nebraska; Camp Robinson, Nebraska; Sidney Barracks, Nebraska; Fort Abraham Lincoln, Dakota Territory; Fort Hartsuff, Nebraska; Fort Sanders, Wyoming Territory.

A large number of tracings of sketches of routes relating to military operations, also of military reservations, including thirty-nine in the Department of the Gulf, were made in the Office.

Capt. William Ludlow, at the headquarters of the Department of Dakota, was employed during the year in the usual duties of his office as engineer officer of the department. He has submitted his report of his recent exploration in the Black Hills of Dakota, under the command of Lieutenant-Colonel Custer, and it will be found in the appendix, accompanied by the valuable reports of Professor Winchell in regard to the mineral resources, and of Mr. George Bird Grinnell concerning the zoology and paleontology of that interesting region. Captain Ludlow has during the months of July, August, and September, 1875, made a reconnaissance from Bismarck to Carroll, on the Missouri, thence by land to Camp Baker, Fort Ellis, and the Yellowstone Park. His report and map will be submitted at an early day, and will be accompanied by reports on the geology, paleontology, and zoology of the region traversed.

Capt. W. S. Stanton, on duty with the commanding general of the Department of the Platte, was engaged in the surveys and establishment of the monuments and boundary-lines of the military reservation of Fort Sanders, embracing an area of thirty square miles, pursuant to an act of Congress approved June 9, 1874, the survey of the military reservation of Fort Hartsuff, embracing two townships, and the selection, survey, and examination of the site for a bridge to be built by the United States over the North Platte at Fort Laramie.

During the year every post in the department has been supplied with a set of reconnoitering instruments, embracing odometer, prismatic compass, and set of drawing-instruments. Maps and topographical note-books have been issued with instructions, designed to take advantage of every movement of troops to secure geographical and topographical information sufficiently accurate for use in revising and extending the maps of the department.

In the Office attention has been given to the collection of information

from all sources available. Maps have been made of the reservations surveyed, drawings of the sub-structure for the new bridge over the Platte, and various tracings and numerous sketches have been made. Fifty-four note-books and one hundred and fifty skeleton maps, each containing three degrees of longitude, have been issued for use in connection with movements of troops. Two hundred and thirty maps have been mounted, and two hundred maps have been issued for the use of officers. Four hundred copies of the map of Wyoming Territory, which was constructed by Captain Stanton's predecessor, Capt. W. A. Jones, Corps of Engineers, have been lithographed.

Lieut. E. H. Ruffner, Corps of Engineers, has continued during the past year his duties as engineer officer on the staff of the general commanding the Department of the Missouri. He reports the total number of miles covered by the journals of the march of troops and of special surveys made under his direction in the year 1874 as 15,088, and that progress has been made upon the general map of the department. He has completed a large lithographed map of the Indian Territory, in four sheets, the work of three years. It will be ready for use shortly. The expedition in the Indian Territory during the summer and fall of last year in pursuit of hostile Indians is reported as having contributed largely to our knowledge of that country.

The survey for a direct wagon-road from Fort Garland to Fort Wingate, commenced in May, 1874, was completed, and the detailed sheets of the route have been completed.

An improved and corrected edition of the map of New Mexico has been prepared by Lieut. C. C. Morrison, acting engineer officer district of New Mexico.

The brief report of Lieutenant Ruffner upon the progress of the work under his charge during the past four years gives a very fair idea of the great amount of labor performed in the office and by the reconnaissance, survey, and scouting parties in the collection of information respecting the character of the country within the limits of the department in which the operations were conducted, and in the delineation of its topographical features and the embodiment of the results in the form of reliable maps.

Lieut. J. G. D. Knight to August 12, 1874, and Lieut. J. C. Mallery for the remainder of the fiscal year, were on duty with the general commanding the Military Division of the Pacific.

During the year, maps of Oregon, Washington, Idaho, and Arizona have been received from the United States land-offices. Geographical and topographical data have been collected from railroad-surveys, from the reconnaissances of scouting parties, and from the movements of detachments detailed to obtain itineraries and sketches of particular routes. A portion of this information, that relating to Arizona, has been embodied in the office-maps.

The following maps have been made during the year: Sheets Nos. 1, 2, and 3, map of the Department of Arizona; maps of the country in the vicinity of Camps Halleck, McDermitt, Gaston, and Independence; revised outline-map of Arizona and Southern California; map of part of the Presidio military reservation; map of part of the San José military reservation. The necessary drawing instruments and materials, together with prismatic compass and odometers, have been issued to the posts in the Department of California. A list of roads requiring measuring and sketching has been supplied to the posts.

A sketch of a reconnaissance, checked by compass-triangulation from a measured base, has been issued, with the necessary explanations.

A map of Oregon, compiled and drawn by Lieut. F. K. Ward, First

Cavalry, acting engineer officer Department of the Columbia, has been photographed and issued.

The boundary-lines of the marine-hospital reserve were re-located.

A survey with a view to locating a road to connect the wharf with the parade at the San José military reservation was made and the line of the road located. The road has been nearly completed by the labor of United States military prisoners.

Borings were made opposite the Presidio reservation to determine the advisability of supporting the proposed wharf at that place upon concrete piers.

Number of maps projected and drawn	3
Number of maps traced	27
Number of photographic prints of maps and sketches	1,393
Number of sketches traced	19
Number of township-plats traced	4

Maj. G. K. Warren, Corps of Engineers, has addressed a communication to this Office respecting the compilation of the map of the Territory of the United States west of the Mississippi River, and the memoir prepared by him (then lieutenant of Topographical Engineers) in 1858, to accompany the same, forming part of volume XI of the Reports of Explorations and Surveys for a Railroad Route to the Pacific Ocean.

His communication, which is appended to this report, was elicited by one from Col. J. H. Simpson, Corps of Engineers, appended to the annual report of the Chief of Engineers of 1872, respecting certain omissions in the published reports and maps of explorations; and besides replying to Colonel Simpson's remarks concerning omissions in the memoir and map referred to, Major Warren states the principles which governed him in giving credit to explorers in his compilation.

ESTIMATES FOR AMOUNTS REQUIRED FOR MILITARY AND GEOGRAPHICAL SURVEYS, EXPLORATIONS, AND RECONNAISSANCES.

For military surveys and reconnaissances by the engineer officers attached to the various headquarters of military divisions and departments, and for the construction and publication of maps for use of the War Department and the Army, $50,000 will be required.

For geographical surveys of the territory of the United States west of the one hundredth meridian, there will be required for field and office work, $95,000; and for preparing, engraving, and printing of plates and atlas-sheets, $25,000.

OFFICE OF THE CHIEF OF ENGINEERS.

In the labors of the Office I was assisted, on the 30th of June, by the following officers in charge of the several divisions.

FIRST AND SECOND DIVISIONS.—*Fortifications, battalion, and engineer depot, lands, armaments, personnel, &c.*, Lieut. Col. Thos. L. Casey.

THIRD DIVISION.—*River and harbor improvements, &c.*, Maj. John G. Parke.

FOURTH AND FIFTH DIVISIONS.—*Property accounts, estimates, funds, survey of the lakes, explorations, maps, instruments, &c.*, Maj. George H. Elliot.

Very respectfully, your obedient servant,

A. A. HUMPHREYS,
Brig. Gen., Chief of Engineers,
Commanding Corps of Engineers.

Hon. WM. W. BELKNAP,
Secretary of War.

REPORT OF THE CHIEF OF ORDNANCE.

ORDNANCE OFFICE, WAR DEPARTMENT,
Washington, October 9, 1875.

SIR: I have the honor to submit the following report of the principal operations of the Ordnance Department during the fiscal year ended June 30, 1875, with such remarks and recommendations as the interests of that branch of the military service seem to require.

The fiscal resources and disbursements of the Department during the year were as follows, viz:

Amount of appropriations in Treasury June 30, 1874	$1,434,105 88
Amount in Government depositories to credit of disbursing officers on same date	468,268 10
Amount of deposits in Treasury not reported to the credit of the appropriations on the same date	4,318 38
Amount of appropriations from July 1, 1874, to June 30, 1875, including the fixed annual appropriation for arming and equipping the militia.	1,342,457 00
Amount of appropriation for the year 1876 available for Rock Island Arsenal, during the fiscal year ending June 30, 1875	100,000 00
Amount from appropriation from sales of ordnance material	56,000 00
Amount (net) received since June 30, 1874, on account of damages to arms in hands of troops, from sales of arms to officers, and of condemned stores, and from all other sources not before mentioned	849,438 72
Total	4,254,578 08

Amount of expenditures since June 30, 1874	1,984,849 89
Amount reported as in the Treasury June 30, 1874, not carried to the appropriations, now covered in as miscellaneous receipts on account of sales of ordnance stores	1,400 20
Amount deposited under appropriation for allowance under eight-hour law in excess of remittances	8,026 74
Amount deposited in Treasury during the fiscal year ending June 30, 1875, as miscellaneous receipts	790,351 10
Amount of deposits in Treasury not reported to the credit of the appropriation on June 30, 1875	11,686 24
Amount in Government depositories to the credit of disbursing-officers on June 30, 1875	255,709 26
Amount turned in to the "surplus fund"	940,019 77
Amount of appropriations in Treasury June 30, 1875	262,534 89
Total	4,254,578 08

During the past year all the varied duties of the Department and the operations at the several arsenals and the National Armory have been performed with a view to an economical expenditure of the limited appropriations made and an efficient and successful administration of the Department. The erection of public buildings at the Rock Island and Benicia Arsenals under specific appropriations; the manufacture of arms ammunition, equipments, and other ordnance stores and supplies, and their distribution to the Army, militia, and Marine Corps; the examination and testing of inventions, and experiments and trials with heavy cannon at the proving-grounds at Sandy Hook; and the care and preservation of the different arsenals and of their stores and supplies, have given full occupation to the officers of the Corps.

REPAIRS OF ARSENALS.

The very small appropriation made the past few years "for the repairs of the smaller arsenals, &c., $50,000," is deemed entirely inadequate to the proper care and preservation of these government estab-

lishments, and, as a consequence, the public buildings, inclosures, &c., that need constant and careful attention, are in many cases going to ruin and decay. It is not judicious economy, for want of a moderate present expenditure, to permit such valuable properties to be injured almost beyond the power of renovation. The arsenals inclose within their limits from ten to fifty buildings each, with extended walls or fences as inclosures, miles of roads and sewers, and in some of them river walls and wharves, making an aggregate of perishable structures and improvements that call for a liberal appropriation for their care and preservation.

ARMING AND EQUIPPING THE MILITIA.

At the instance of this Bureau, for the purpose of relieving many of the States and Territories from charges of arms, &c., on the books of this Office, Congress passed the following at its last session:

[Extract from "An act making appropriations, &c., for the support of the Army for the fiscal year ending June 30, 1876, and for other purposes," approved March 3, 1875.]

"SEC. 3. That all issues of arms and other ordnance stores which were made by the War Department to the States and Territories between the first day of January, eighteen hundred and sixty-one, and the ninth day of April, eighteen hundred and sixty-five, under the act of April twenty-third, eighteen hundred and eight, and charged to the States and Territories, having been made for the maintenance and preservation of the Union, and properly chargeable to the United States, the Secretary of War is hereby authorized, upon a proper showing by such States of the faithful disposition of said arms and ordnance stores, in the service of the United States in the suppression of the war of the rebellion, to credit the several States and Territories with the sum charged to them respectively for arms and other ordnance stores which were issued to them between the aforementioned dates, and charged against their quotas under the law for arming and equipping the militia: *Provided*, That it shall be the duty of the Secretary of War, before making a credit to any of said States and Territories, to investigate and ascertain, so nearly as he can, the disposition made by each of said States and Territories of said arms and ordnance stores; and, if he shall find that any of said arms or ordnance stores have been sold or otherwise misapplied, to refuse a credit to such State or Territory for so much of said arms and ordnance stores as have been sold or misapplied; and the amount thereof shall remain a charge against said State or Territory, the same as if this act had not been passed."

In the endeavor to properly carry out the intention of this law a circular letter has been sent to the governors of such States and Territories as are interested, giving the law above quoted, and inclosing a detailed statement, taken from the books of this Office, of all issues made between the dates fixed in the law and charged against their quota under the act of April 23, 1808, for arming and equipping the militia. They have been requested to cause a detailed statement to be made to this Office at an early day, supported by the necessary vouchers or other satisfactory evidence, showing—

I. The disposition made of the particular arms, &c., received between the aforementioned dates. If issued to State troops who were subsequently mustered in to the service of the United States, *carrying with them these arms*, &c., the name of the company and regiment (in the United States service) of such troops must be stated, together with the

name of company and regimental commander, and the date and place of muster-in and muster-out.

II. If any of such arms and ordnance stores at any time up to present date reverted to the possession of the State, the disposition of the same by the State authorities must be stated.

III. If any arms or other ordnance stores, now charged against your State, were lost or destroyed during the rebellion, their description and quantity must be stated, the cause and manner of their destruction given, and properly supported by evidence, with the reasons why credit should be given by the United States for said loss.

But few of the States and Territories have responded to this circular letter, but this Bureau will renew its efforts to reach a satisfactory and final solution of this matter, so necessary to the proper arming and equipping of the militia.

It is recommended that the attention of Congress be invited to the following:

"AN ACT to authorize and direct the Secretary of War to distribute arms and military equipments under the act of April twenty-three, eighteen hundred and eight, and the acts amendatory thereof.

"*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That the Secretary of War be, and he is hereby, authorized and directed to distribute to such States as did not, from the year eighteen hundred and sixty-two to the year eighteen hundred and sixty-nine, receive the same, their proper quota of arms and military equipments for each year, from eighteen hundred and sixty-two to eighteen hundred and sixty-nine, under the act of Congress approved April twenty-third, eighteen hundred and eight, and the several acts amendatory thereof: *Provided*, That in the organization and equipment of military companies and organizations with said arms no discrimination shall be made between said companies and organizations on account of race, color, or former condition of servitude."

"Approved March 3, 1873."

Under the provisions of this act all the States that had been in rebellion were credited on the books of this Office with their respective quotas during the period mentioned, and arms and other ordnance stores were issued to several of them on their application, and charged accordingly. At the last session, however, Congress passed the following:

Extract from "An act making appropriations, &c., for the support of the Army for the fiscal year ending June 30, 1876, and for other purposes," approved March 3, 1875.

"*And provided further*, That so much of the appropriations between the first of January, eighteen hundred and sixty-one, and the ninth of April, eighteen hundred and sixty-five, under the act of April twenty-third, eighteen hundred and eight, herein referred to, as would have been used for the purchase of arms to be distributed to the several States that were in rebellion, shall be covered into the Treasury of the United States."

The effect of this last act is to annul the provisions of the act above quoted, approved March 3, 1873, and in its consequence to do injustice to some of the States interested by an unequal distribution of stores. So much of the appropriations referred to as was still to the credit of any of these States has been "covered into the Treasury of the United States;" but it is suggested whether, in consideration of the two laws above quoted, and the interests of the militia of the States, Congress should not be asked for further legislation thereon.

This Bureau has, for several years past, called attention to the necessity of an increase to the annual appropriation for arming and equipping the militia. The subject has been discussed in previous reports, and a mere reference to its importance to the interests of the whole country is now made. The annual appropriation of $200,000 was made in 1808, when the population of the country was about eight millions. At the present time, with a population of over forty millions, the amount appropriated is still the same, and it is impossible for this Department to meet all the demands made upon it by the States and Territories. If it be the intention and desire of Congress, as expressed in the act of 1808, to provide "arms and military equipments for the whole body of the militia of the United States," then the necessary means ought to be supplied by largely increasing the annual appropriation. The last official reports give the following as the aggregate strength of the militia of the United States:

Organized	84,724
Unorganized	3,701,977

and there is little doubt that were "arms and military equipments" more freely supplied, the organized force would be greatly enlarged. The hope is entertained that this may receive the attention of the proper committee, and that further legislation may be had at the next session of Congress.

ARSENALS.

Congress, at its last session, in "An act making appropriations for sundry civil expenses of the Government for the fiscal year ending June 30, 1876, and for other purposes," provided as follows:

"And the Secretary of War is hereby directed to cause an examination to be made into the condition of the United States arsenals east of the Mississippi River, and to report to the next Congress how many of the same can be sold without interfering with the necessities of the military service, together with an estimate of the amount that can probably be realized from the sale of each of the same whenever such sale shall be directed by Congress."

In pursuance thereof, a board, consisting of Lieutenant-Colonel Crispin and Majors Treadwell and Baylor, Ordnance Department, was appointed for the purpose indicated, and its report is herewith submitted, (marked "Appendix A.")

The board recommends the immediate sale of Pikesville Arsenal, Md. This recommendation is concurred in, the arsenal being badly located and of insufficient capacity for storage to justify the expenditures necessary to keep it in repair. The Detroit Arsenal having been recently turned over to the Interior Department for sale, as required by law, and the Columbus Arsenal having been transferred to the general recruiting service for depot purposes, the board strongly recommends the retention of all the remaining arsenals east of the Mississippi as essential for the necessities and proper service of the Ordnance Department, unless Congress shall by legislative enactment permit the execution of the plan of concentration proposed by the board on arsenals in 1874. (See Chief of Ordnance Report, 1874.)

That plan consists in the establishment of a grand arsenal of construction in the vicinity of New York City, retaining the Springfield Armory and the Frankford Arsenal as adjuncts, for manufacturing purposes; retaining, also, the Indianapolis Arsenal, Ind.; Kennebec Arse-

nal, Me.; Fort Monroe Arsenal, Va., and Augusta Arsenal, Ga., as places for storage and repair; and selling the Allegheny, Watervliet, Watertown, and Washington Arsenals as rapidly as circumstances will permit, the proceeds of such sales to be devoted to the purchase of a site and the erection of workshops, store-houses, &c., for the grand arsenal. The amount that can probably be realized from the sales will be $3,316,824.56.

The wisdom and economy of a greater concentration of ordnance manufactures seem to call for no extended argument. The military powers of the world do not fritter away their means in fostering numerous establishments, but bring together in one grand whole all their resources, that there may result economy and perfect work. The experience of all private enterprises points to concentration as a vital element of success. Proximity to the raw material, skilled labor, and cheap transportation are the scarcely less important factors in the problem, and all these can be attained by the plan proposed. It appeals all the more strongly for favorable consideration and action, in that the plan can be carried out without taking a dollar from the public treasury. This policy of concentration has been carried out for the Pacific coast at the Benicia Arsenal, and for the Mississippi Valley at the Rock Island Arsenal, and cannot be too highly commended nor too closely followed.

With our railroad system of intercommunication that reaches every portion of our broad domain, the distance to any point of our long shore-line, or of our vast inland frontier, is becoming of less paramount importance in the distribution of war material, and a few well-selected and amply-provided centers of supply can more quickly and economically fulfill all demands than did the many arsenals, without rail facilities, half a century ago.

The Rock Island Arsenal, in its present incompleted state, now supplies all the militia of most of the States and Territories drained by the great river and its tributaries, many of the fortresses that guard the coast-line of the Gulf of Mexico, and more than one-half of our Army, now scattered from the Mississippi River to the Rocky Mountains and beyond. When completed and fully equipped as a manufacturing arsenal, its capacity will equal the supplying of all the armies that may be organized in the Mississippi Valley in any war of the greatest magnitude.

Under the skillful management of its present commanding officer, Major Flagler, the erection of some of its extensive workshops, the completion of its water-power development, the construction of its long approaches and communications, and the arrangement and perfection of its numerous minor details, have been economically and admirably done.

POWDER-DEPOT AND POWDER-MILL.

An estimate has been submitted for the purchase of a site and the erection of magazines for the storage of gunpowder. The only powder-depot for the use of the Department is located at the Saint Louis Arsenal, Missouri, on the large Government reservation a few miles south of Saint Louis, but is too remote from the Atlantic seaboard to be of service for our wants in the eastern section of the country. Another depot is absolutely indispensable, to be located at some convenient point far away from our large cities and closely populated neighborhoods, but at a convenient distance from water transportation on the Atlantic coast. At present all our powder-supplies have to be stored in the small maga-

zines at our arsenals in dangerous proximity to our cities, or in the forts of our harbors, where it is subject to the deteriorating influences of the sea-air. The annual saving to the Government in the preservation of powder at a well-established depot would, in a short time, repay the original expenditure.

The depot should also supply the necessary accommodation for the machinery and other appliances for the manufacture of powder for experiment, and to enable the Department to determine and fix the standard powder for Army uses. The want of a powder-mill for Army purposes has been long felt, and its erection is of prime necessity to the country. The Ordance Board of 1868, after a careful consideration of the subject, recommended the transfer to one of our arsenals of such machinery as might be available "for experimental purposes, in order to fix the best method of manufacturing gunpowder;" which recommendation was approved by the Secretary of War. Upon examination the machinery on hand was reported unsuitable for the purpose, and the approved recommendation of the board has remained unacted on to this day. The Board on Arsenals of 1874 (see report of Chief of Ordnance, 1874, page 163) earnestly recommended that Congress appropriate a sum for a powder-depot, "and the accommodation of suitable machinery and appliances for the manufacture of experimental powders." These views meet with the hearty concurrence of this Bureau, and, in support of the opinions and wishes so often expressed heretofore, I submit a letter from Col. T. T. S. Laidley, Ordnance Department, (marked "Appendix B,") for the consideration of the War Department and of Congress.

SMALL-ARMS.

The manufacture of Springfield rifles and carbines at the National Armory has been carried on during the past year with all the economy and success that the very small appropriation would admit of. The appropriation for the present fiscal year not being increased to any great amount by any other available funds under the control of this Department, the number of operatives at the armory has had to be largely reduced. Not more than 17,000 arms will be made under existing appropriations.

Up to date the entire Army has been supplied with new rifles and carbines, caliber .45, and we have now in store a reserve supply of these arms of about 26,000. At the end of the present fiscal year (June 30, 1876) our reserve supply may reach a total of 40,000 arms—of the new model and caliber—about enough in case of war to arm one *corps d'armée*.

It is not to be expected that in war our armies will be better satisfied with arms of obsolete patents and discarded models than in the early days of the rebellion they were with the offscourings of foreign markets. Men who are to meet the enemy in battle have a right to demand of their country, in whose defense they are willing to imperil their lives, to be placed on an equality with the foe, and be armed with the best weapon that ingenuity and workmanship can produce. And in our country, where armies are to be improvised, made up on the instant by recruits from the anvil and the plow, the want of military discipline and training should be as much as possible compensated by the quality of the weapon the soldier is to use. Our arsenals should, therefore, be well stocked at all times with a large reserve supply of the best rifles and carbines, and Congress should, in the spirit of economy, appropriate liberally for their manufacture.

ARTESIAN WELL AT BENICIA ARSENAL.

The boring of the artesian well at the Benicia Arsenal has been continued during the past year, and a depth of 1,050 feet has been reached, the quantity of work accomplished being greater than in previous years. The commanding officer's report thereon is herewith transmitted, (marked "Appendix C.") With the appropriation now available for a continuation of the boring, it is hoped that during the current fiscal year a plentiful supply of water may be obtained.

THE INFANTRY SERVICE.

In May, 1874, the attention of the War Department was invited to the subject of a proper equipment for the infantry soldier, which had for some time been under the consideration of this Department, in the effort to perfect it in design and manufacture. Experimental equipments (a modification of the adopted English system) had been on trial by the troops in the field, and the data on file in this Bureau rendered it probable that, after full investigation, a judicious selection could be made. On my recommendation a board of infantry officers, of which Lieut. Col. W. R. Shafter, Twenty-fourth Infantry, was president, was appointed to meet on July 1, 1874, to consider and recommend the adoption of an equipment best suited to troops serving as infantry, and to determine on such material and supplies as may seem necessary for the efficient outfit of infantry troops in the field and garrison. After a session of five months, with all the facilities of the Watervliet Arsenal to assist the members in their investigations, the board made its report, which was approved, and is herewith submitted, (marked "Appendix D.") The equipment adopted is now being manufactured, and the troops will be supplied with it as rapidly as the resources under the control of the Department will permit.

INTERNATIONAL EXHIBITION, 1876.

The War Department having directed that the most complete exhibition of the resources of the various branches of the Army service should be made at the International Exhibition next year, to the extent of the appropriation allotted for that purpose, the war material and supplies prepared and controlled by the Ordnance Department it was thought would be of special interest, not only to our own citizens, but to visitors from abroad. That every care should be taken in furtherance of so important a matter, and that the display might be as creditable as possible in its selection and arrangement, it was deemed advisable to assign a capable officer to that duty. Lieut. Henry Metcalfe, Ordnance Department, has been selected as peculiarly fitted to do full justice to the work, and it is confidently believed that, under his intelligent supervision and administration, this Department will make an exhibit that will be creditable to the country, and prove to be one of the most attractive features of the exhibition.

HEAVY ORDNANCE.

During the past year the proper armament for our sea coast defense has engaged the earnest attention of this Department, and a board of distinguished ordnance officers has been in permanent session, endeavoring to obtain all the data possible with the very straightened resources

at the command of this Bureau. Its original report of December 14, 1874, was transmitted to Congress by the President of the United States in a special message of January 20, 1875. In that message the President urges "the absolute necessity for immediate provision by Congress for the procurement of heavy cannon," and adds that "the constant appeals for legislation on the 'armament of fortifications' ought no longer be disregarded, if Congress desires in peace to prepare the important material, without which future wars must inevitably lead to disaster." A small appropriation of $75,000 was all that was obtained from Congress in the interest of our sea-coast defense; but it is urgently recommended that the attention of Congress to this important subject be invoked, and that the appropriation of the money estimated for be strongly pressed upon its consideration.

Since the above-mentioned report on the 8-inch rifle was made, the board has continued its trials with that gun; and up to the present time it has been successfully fired 700 rounds with battering charges, and still remains "sound and serviceable," giving an endurance that fully justifies the recommendations of the board, and my approval, that our large number of smooth-bore guns ought to be converted into rifles, as it is entirely practicable to give the requisite strength and consequent endurance by the insertion of a wrought-iron tube. Additional proof of the correctness of this decision is found in the results obtained by the firing of the 9-inch rifle, (10-inch Rodman lined with wrought-iron tube,) which has thus far sustained 250 rounds, with battering charges of 40 to 45 pounds of hexagonal powder, and shot of 200 to 247 pounds weight, the gun remaining sound and in good condition.

The report of the board, December 14, 1874, with the additional reports received, including a detailed statement of the manner of making the coiled tubes and inserting them in the guns, are herewith submitted, (marked "Appendix E.") The experiments that have been conducted at Sandy Hook, and which constitute the burden of these reports, have been so successful and satisfactory in their results that they have awakened an interest among military men abroad, and to a surprising degree, when we realize our pigmy efforts at effecting results with insufficient means, and compare them with the extensive and elaborate trials, seemingly regardless of expense, that have been, and are being, prosecuted from year to year by almost every European nation.

We have the best cast-iron gun-metal known, and this plan of conversion enables us to utilize our own products. The wrought-iron tubes can probably be manufactured in this country also. And the combination of the two results in the production of a system of great strength and power. The success of the conversion of a 10-inch smooth-bore Rodman into an 8-inch rifle should be at once followed up by a trial of a 12-inch 35-ton gun made on a similar plan of conversion. We cannot stand with folded hands and permit other nations to get far in the van in a line of improvement in which the United States, not many years ago, knew no superior.

The successful manufacture and preliminary trial of the 81-ton gun in England is only another move in the great contest between guns and iron-clads; for the hurling of a rifle-shot of 1,250 pounds, with a velocity of 1,550 feet per second, cannot be considered the extreme limit to the development of artillery-power; and yet, for the want of the necessary appropriations, this country is forced to depend on a smooth-bore system and a few small rifles carrying shot of 180 and 250 pounds weight, which cannot possibly fulfill the important and ever-varying conditions of modern warfare. We are even now dependent for much of

our information in these matters, so vital to the national defense, on the results of experiments abroad, at a time, too, when, had we the means, as we have the skill and ability, we could undoubtedly keep up successfully with the advances made by other nations. Rifle-guns of size, endurance, and power to enable us to meet on fair and equal terms a foreign foe must be provided while we have the time, and it is certainly not the part of wisdom to delay making such provision until the enemy invades our shores.

TESTING STEEL.

In order to secure the proper quality of material for the manufacture of the Woodbridge experimental gun, experiments on the mechanical properties of steel, produced from various materials and by different processes, with reference to its employment in the construction of cannon on that system, had to be undertaken. The report of Dr. W. E. Woodbridge of the tests made by him, under the orders of this Department, is herewith transmitted, (marked "Appendix F.")

INFRINGEMENT OF PATENTS.

I have the honor again to advert to the subject of patent-claims set up against this Department for alleged infringements in the productions at the National Armory and at the several arsenals of construction. The Chief of Ordnance, in his report for the year 1873, gave a succinct statement of the state of those claims at that time. The claims on the Springfield rifle date back to the order of the Secretary of War of July 28, 1866, for the conversion of 50,000 muzzle-loaders to breech-loading arms. The skill and ingenuity of the officers and workmen of the Ordnance Department, brought into active operation previous to that time and continued to the present, has resulted in the production of as perfect a single breech-loading arm as will find its place in modern war. Its mechanism, it is claimed, has touched upon and appropriated in part the best features of several distinct and separate patents, some of which were perfected and re-issued after the work of the Government had begun, and whose owners are now seeking compensation for the use.

The consideration of a patent-case involves a careful weighing of many matters of fact relating to novelty, priority, &c., as well as an appreciation of equivalents and dissimilarities in mechanical structures and contrivances, and the proper application of the principles of patent-law to facts thus found. Where a device stands boldly out as the original type of its class, and the many questions of a character to affect the validity of the patent are in such a case reasonably free from doubt, it is apprehended that it would require but ordinary patent-expert skill to settle with certainty the merits of any question of infringment that might be raised; but where *several* claimants profess to cover by their patents the same identical device or combination, a proper regard to the several interests involved renders the matter more difficult of determination. An impartial settlement requires, in most cases, the assistance of the highest degree of expert skill and the exercise of the highest order of legal talent in the specialty of patent-law. The law prescribes a judicial method of settlement where private parties only are concerned, but the means of deciding properly between contending patentees and determining the amount of damages sustained by them, or any of them, where the Army workshops are concerned, are not vested in any portion of this Department, nor, indeed, as respects cases wherein the United States are properly the defendants, are they known to be vested in any Department of the Government at the present time.

The methods adopted by some of the claimants of instituting suits in the United States circuit courts against officers of this Department for the alleged infringements is onerous to the officers themselves, and can only result, in the event of the success of the suits, in embarrassing such officers in their private means, whereas the Government is the sole beneficiary in the use of the things which are the subject-matters of litigation. A recent opinion of the Attorney-General has inferentially decided that the executive officers of the Government are not authorized to settle the judgments, for past use, rendered in such suits, without authority of Congress to do so. This opinion has been the guide of this Bureau since that time. The officers, therefore, against whom judgments might be rendered would be put to the harassing necessity of securing special legislation for their relief in respect to matters over which they have had little or no power or control.

The indemnity due to public officers who have acted in pursuance of competent authority in the performance of their public duty, or who have in good faith exercised the discretion vested in them by law, is secured to a certain class of Government officials by general legislation. Collectors and other officers of the revenue are thus secured by section 989, Revised Statutes. It is therein enacted, that when a recovery is had in any suit or proceeding against such officer for any act done by him, in the performance of his official duty, and the court certifies that there was probable cause for the act done by him, or that he acted under the direction of the Secretary of his Department, or other proper officer of the Government, no execution shall issue against him, but the amount so recovered shall, upon final judgment, be provided for and paid out of the proper appropriation from the Treasury.. *Legislation similar to the foregoing, in favor of the officers of this Department* against whom recoveries may be had for infringement of patents in the productions of the armory and arsenals, would be a practicable method of relieving this Bureau of a present embarrassment.

It is believed, however, that, where several patents are alleged to cover a single complex device, each of these patents should be brought under the adjudication of a *common* tribunal, where the combined wisdom and experience necessary to the disposal of the whole number of cases could be brought to bear on each particular one in detail. If suits on such a device are brought by the several patentees in widely-separated jurisdictions, there is great liability of undue compensation being awarded to one patentee and inadequate remuneration to another, when the relative importance of the several patents is thereafter taken into account. It is, therefore, a question in the interest of the patentees themselves, as well as of public economy, whether some particular forum should not be named wherein claims of the character here referred to should be exclusively brought. The Court of Claims has denied its jurisdiction in cases of infringement of patent-rights by the Government, because such claims are held to sound in *tort*, and because the jurisdiction of the circuit courts is by law made exclusive in cases of patents. (See Pitcher's case, and Nock's case, 1 C. C. Repts., pp. 7 and 83.) Were it not, therefore, for these limitations upon the jurisdiction of the Court of Claims, this Department might readily refer all cases of alleged infringement for the decision of that tribunal under section 1063 of the Revised Statutes. Claimants before this Bureau for past use are now, however, without a remedy, except by personal actions against the officers of the Ordnance Department, (who have been and are acting under superior authority,) or by a direct application to Congress. As indicating the direction heretofore given by Congress to a complicated

patent-case arising out of this Bureau, in order to secure for it the careful legal investigation which its importance demanded, attention is respectfully invited to the joint resolution of June 3, 1864, (13 S. L., p. 588,) referring the claim of William W. Hubbell to the Court of Claims. This claim was founded upon the use by the Government, to a very large extent, of devices covered by the patents of the claimant; and the court was directed to investigate and determine whether the claimant was the original inventor of the particular devices in question, and if he had a just and equitable right to compensation for the same; if so, what amount of compensation he was entitled to receive for the use of the inventions up to the time of adjudication, and for a full and entire transfer of his patents to the United States. This case, therefore, furnishes a precedent for the method of settling this class of cases; and, coupled with the advantages to accrue from the adjudication in a single tribunal of all patents where the United States is defendant, I would respectfully submit it to the wisdom of Congress *whether jurisdiction ought not to be given to the Court of Claims in all cases of the character here explained where the United States is defendant.* I earnestly recommend that some action may be taken at the coming session on this subject, which has engaged the attention of this Bureau for so long a time.

I have the honor to submit the following papers in addition to those heretofore mentioned:

Appendix G.—Statement of principal articles procured by purchase and fabrication at the arsenals during the year ended June 30, 1875.

Appendix H.—Statement of ordnance, ordnance-stores, &c., issued to the Regular Army and to posts during the year ended June 30, 1875.

Appendix I.—Apportionment of arms for the fiscal year ended June 30, 1875, under the law of 1808, for arming and equipping the militia, as amended by the seventh section of the act approved March 3, 1855, and regulations established in conformity therewith.

Appendix K.—Statement of ordnance, ordnance-stores, &c., distributed to the militia from July 1, 1874, to June 30, 1875, under the law of 1808, as amended by the seventh section of the act approved March 3, 1855.

Appendix L.—Statement of ordnance, ordnance-stores, &c., distributed to colleges from July 1, 1874, to June 30, 1875, under the joint resolution of May 4, 1870.

I have the honor to be, very respectfully, your obedient servant,

S. V. BENÉT,

Brigadier-General, Chief of Ordnance, U. S. A.

The Hon. the SECRETARY OF WAR.

REPORT OF THE CHIEF SIGNAL-OFFICER.

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL-OFFICER.
Washington, D. C., November 1, 1875.

SIR: Instruction in military signaling and telegraphy, meteorology, and the Signal-Service duties at stations of observation and report, together with the drills of the Signal-Service with arms, has continued at the established school of instruction and practice at Fort Whipple, Va. The building for instruction purposes, and the other structures at the post, have, under the order of the Secretary of War, been much improved during the year. The apparatus for the different branches to be taught, for the necessary study and practice with instruments for the meteorological duties at stations of observation, the equipment for

the drill in field-signaling, the drill with the field-telegraph train, the construction drill for permanent telegraph-lines, and the duties on signal and telegraphic stations are completed, and have permitted the courses to be pursued thoroughly and with advantage. The drills with arms, and in the usual military forms, have been steadily pursued. The duties at the post are conducted under strict military rule. Experiments with new-formed apparatus for the purposes of field-signaling by ærial or electric telegraphy are here conducted. The course at the school of instruction and practice at Fort Whipple is intended to furnish a force of selected enlisted men, at once disciplined as soldiers, and fitted by special instruction for the different special duties of the Signal-Service. There have been instructed during the year eighty men as assistant observers, and forty-two for promotion to the grade of sergeant. The enlisted men on duty at the different stations, together with those of the service employed upon the telegraphic works in charge of the Office, have, with but few exceptions, been here instructed, and are detailed hence to their different posts. The very extensive duties devolving upon the service during the year have rendered it impossible to keep at the post the full force required for all the exercises.

The plan of instruction requires all officers and enlisted men of the Signal-Service to pass the course of drill, study, and practice, and serve regularly at the post of Fort Whipple before being put upon any other duty.

The act approved March 3, 1875, maintaining the Signal-Service as then organized, and providing for one hundred and fifty sergeants, thirty corporals, and two hundred and seventy privates, has been productive of good results. The men who have enlisted under it are of superior quality. (Paper 6.)

The course by which men to be enlisted for the Signal-Service are first required to pass a preliminary educational examination before they are accepted, are then sent to the post to be drilled, are instructed, tested by practice, instructed later in higher branches, again examined, and again tested before being intrusted with the management of stations, has continued to furnish a force of soldiers of superior education and good character at the many stations throughout the United States. The details of the procedure by which the soldiers appear before different boards and are examined as to qualification for each grade of duty to which they are to be assigned at stations before they are intrusted with it, and before they are promoted, were carefully set forth in the ast annual report of the Chief Signal-Officer.

The number of enlisted men on duty at Fort Whipple has varied during the year from one hundred and forty-two to sixty-three, and the number of officers from two to nine. The average number of enlisted men for duty for the last three months of the year ending June 30, 1875, has been seventy-three. The morning report of the post for June 30, 1875, exhibits ten non-commissioned officers and fifty-eight privates as present for duty. Of the number of privates, four were candidates for promotion, and under special instruction. First Lieut. R. P. Strong, acting signal-officer, has continued in charge of the post, and First-Lieut. C. E. Kilbourne, acting signal-officer, has served as instructor. Both officers have well discharged their duties. Acting Assistant Surgeon L. W. Ritchie, U. S. A., has been in charge of the hospital. One officer has completed the full course of instruction during the year past, and six officers are still under instruction at the date of this report. (Papers 1 and 2.) Forty-two enlisted men, who had previously served as assistant observers at stations for six months, have been ordered to Fort Whipple as candidates for promotion to the grade of sergeant during the

year. Of this number, thirty passed a satisfactory examination and were promoted; two failed to pass the examination; two were dropped from instruction for misconduct; three were discharged from the service before completing the course of study; and five are still under instruction. (Paper 3.) Eighty enlisted men have passed the course of instruction and practice during the year, to fit them for the duties of assistant observers. (Paper 4.) The plans for the instruction, the practice, and for the different examinations the enlisted men are required to pass, reported upon in the last annual report of the Chief Signal-Officer, have remained unchanged.

The instruction in the duties of the Signal-Service elsewhere than at Fort Whipple has been as follows: One of the officers at the Military Academy at West Point is designated as instructor in military signaling and telegraphy, in addition to other duties, but no reports have been received from him showing the amount of time devoted to this duty, or the progress made by the cadets. In the Department of the Missouri, Second Lieut. Philip Reade, Third United States Infantry, was succeeded as instructor, August 6, 1874, by Capt. C. S. Ilsley, Seventh United States Cavalry, and A. D. C., from whom reports for September and October, 1874, have been received. In the Department of Dakota a form of instruction has been maintained, and monthly reports are made with regularity, but no information is had as to actual results hitherto derived from the work. In the Department of the Atlantic, instruction has been given at Fort Wadsworth, New York Harbor, by Lieut. R. D. Potts, acting as post signal-officer. Details of officers to serve as instructors in signaling have been made in several other military departments and at numerous military posts, but no details of officers who have been themselves properly qualified to act as instructors, by passing the full course of study and practice at Fort Whipple, Va., have been reported to this Office. It is recommended that all officers of the Army intended to be instructed as acting signal-officers, or to be temporarily instructors in geographical military departments for the field-duties of the Signal-Service, be first instructed at this post before being put upon detached duty.

The work done at this Office has been extensive, covering a wide field of operations, with many and complicated details, each requiring to be carefully elaborated for each day, and each limited for its discharge to fixed and very brief periods of time. The steadily-improving organization of the service has permitted each branch of duty to be carried on with regularity.

The correspondence of the Office in its several divisions is of large amount. Fifty-eight thousand one hundred and ninety-three communications have been sent, and eight hundred and eight thousand eight hundred and sixty-five have been received, during the year. The record of this correspondence, much of which is formal, is classified in Paper 5.

The aggregate of the correspondence is eight hundred and sixty-seven thousand and fifty-eight letters and documents sent and received, exclusive of publications and telegrams.

The numerous requests for information on very varied subjects, many of them only indirectly connected with the duties of this Office, require of themselves much attention.

The Office is in communication with numerous foreign correspondents, having now official relations with scientists and the chiefs of meteorological services of nearly every prominent power in the northern hemisphere.

Brevet Lieut. Col. Garrick Mallery, acting signal-officer and assist-

ant, has continued in charge of records, general correspondence, and orders, with the superintendence of enlistments and other duties especially assigned to him. Recruiting for the Signal-Service has been conducted at this Office under the general supervision of this officer.

The amount of work in the property-division of the office has increased during the year. First Lieut. Henry Jackson, acting signal-officer and assistant, has remained in charge as property and disbursing officer.

The average cost of maintaining each station of observation during the year has been $489.86. This amount is exclusive of the cost of telegraphing reports.

In addition to other duties, Lieutenant Jackson, as in charge of the map-room, has supervised the preparation of numerous maps and charts, and has continued during the year the collection of statistics for obtaining the accurate elevation of the several stations of observation. Sixty-nine lines of levels, to be used in connection with this work, have been received from civil engineers during the year. One hundred and sixty-nine dollars and thirty-two cents have been received during the year from the sale of maps and other office publications, in accordance with the act of Congress approved March 3, 1874, authorizing such sales. Six hundred and twenty meteorological instruments have been purchased since last report, and three hundred and eight issued.

The library of the Office now contains three thousand and twelve bound volumes, and has upon its files many valuable pamphlets, maps, and charts. The works are selected with reference to their value to the scientific branches connected with the duties imposed upon the Office. A large number have been obtained without expense to the United States, through the system of exchanges established. Paper 7 exhibits a list of exchanges.

Brevet Captain H. W. Howgate, acting signal-officer and assistant, has continued to have general charge of instruction and general supervision of non-commissioned officers and assistants on station duty, and of the receipt, record, and publication of the weather reports, together with other duties especially assigned him.

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SPECIAL RIVER STATIONS.

The following table shows the names and locations of all Special River Stations under the direction of the Signal-Office, with the date at which each began reporting originally:

	Stations.	Rivers.	Names.	Began reporting.
1	Freeport, Pa	Allegheny	M. H. Alter	Apr. 17, 1873
2	Hermann, Mo	Missouri	Edward Kehr	Apr. 24, 1873
3	Jefferson City, Mo	....do	Louis C. Lohman	May 12, 1873
4	Oil City, Pa	Allegheny	W. R. Stevenson, C. E	Apr. 20, 1873
5	Brownsville, Pa	Monongahela	J. Allen Hubbs	June 6, 1873
6	Evansville, Ind	Ohio	A. C. Pushee	Apr. 21, 1873
7	Confluence, Pa	Youghiogheny	M. Tannehill	Apr. 23, 1873
8	New Geneva, Pa	Monongahela	H. T. Davenport	Apr. 24, 1873
9	Lexington, Mo	Missouri	Z. S. Mitchell	Apr. 27, 1873
10	Kansas City, Mo	....do	W. A. M. Vaughan	Apr. 21, 1873
11	Brunswick, Mo	....do	G. D. Kennedy	May 1, 1873
12	Little Rock, Ark	Arkansas	C. H. Conradt	Apr. 21, 1873
13	Plattsmouth, Nebr	Missouri	A. L. Child, M. D	Apr. 20, 1873
14	Marietta, Ohio	Ohio	J. H. Best	Apr. 19, 1873
15	Saint Joseph, Mo	Missouri	Robert Gunn	May 8, 1873
16	Warsaw, Ill	Mississippi	D. H. Cox	May 7, 1873
17	Paducah, Ky	Ohio	Capt. C. Bachmann	May 1, 1873
18	Booneville, Mo	Missouri	Charles W. Hazell	Apr. 28, 1873
19	Le Claire, Iowa	Mississippi	C. P. Disney	June 2, 1873
20	Helena, Ark	....do	J. B. Miles	Feb. 25, 1874

The annual reports of the Chief Signal-Officer relating to the details of the different duties at the different stations, and the mode in which the services rendered at all are combined to obtain general results, become, to a greater extent, each year, as the service is established, repetitions of the antecedent reports. The labor of maintaining so large a number of stations, charged with so many and different duties, which must be rendered daily and at night at fixed instants of time, and without cessation throughout the year, is great. The superior character of the men employed upon the duty has gone far to make it successful.

The total number of stations of observation now maintained upon the territories of the United States, as necessary for the purposes of the service, is one hundred and two. Reports are, by comity of exchange, received from nineteen additional stations, established by the authorities of the Dominion of Canada and within the Dominion; and observations are had from seven stations located at suitable points upon the islands of the West Indies.

The total number of stations from which telegraphic reports of meteoric changes are received tri-daily, in regular series, is one hundred and nine.

The forms herewith exhibit the reports received from the stations tri-daily, in cipher, over a system of telegraphic circuits connecting with this office, which have been heretofore sufficiently explained. (Paper 24.)

The bulletin forms contain the same reports, after translation from the cipher, and exhibit the information received from each station. (Paper 25.)

In pursuance of the plan some years ago entered upon at the request of the chief of the meteorological office of the Dominion of Canada, warnings of approaching dangerous storms are, by arrangement, telegraphed from this office to Toronto. The display of signals by the authorities of the Dominion of Canada is based upon these telegrams. The relations thus maintained between the two services continue to be of benefit to both.

The plan of the location of the different stations of observation has been referred to in preceding reports of the Chief Signal-Officer. It has been to so arrange that each station might, from its point of observation, give notice of meteoric changes, and warn against unusual disturbances, for its particular section, while all should be so placed, as in a series of lines and in such relations, each to the other, that the reports of any one and the contiguous stations received at the other stations as they pass by telegraph toward the office of the Chief Signal-Officer at Washington, may of themselves give notice of marked approaching meteoric changes. The reports of all, concentrated, charted, and studied at this office, are intended to enable the extent, movement, and course of the disturbance to be observed and defined from report to report, and to permit warnings to be issued by publications or by signals at any time, for the benefit of all.

The eastern line of observation, attempted to be maintained, reaches from the stations far southward and eastward, at Barbadoes and the Windward Islands, through the West India Islands, and along the Atlantic coasts to the northeast, at Father Point and Halifax.

The southern line, joining that of the east at Key West, extends along the southern coasts of the United States bordering the Gulf of Mexico to the mouth of the Rio Grande and the Mexican frontier. Between this point and the southern port of San Diego upon the Pacific Ocean, the intervals not covered by telegraph-lines each year

diminish. The time is not far distant when the line can be extended across the continent.

The western line reaches, on the Pacific, with far too few stations, from San Diego to Portland, Oreg. The northern line connects this station, passing over the plains by the Great Upper Lakes, through the Dominion of Canada and the Saint Lawrence Valley, with the eastern line at Halifax.

Within these bounding lines the territory is covered by the establishment of such stations of observation as the skill and the facilities of the office have permitted. There have been but few changes in the locations of these stations east of the Mississippi River. West of the Mississippi the lines of stations are carried steadily westward, wherever improving facilities of communication and the means at the control of the service have made the measure possible.

The chart herewith exhibits the names and locations of the different stations. (Paper 47.)

In the whole list of stations there is not one but the failure of reports from which is unpleasantly felt; nor is there any limiting station but from which the student looks longingly into the unknown region beyond, with the wish that from that unknown might come the information to give his studies accuracy. Near the southern extremity of the eastern line, the experience of meteorists has located the origin of cyclones, which sometimes sweep in a single course over the whole eastern portion of the United States in the vicinity of the sea. Beyond the western extremity of the southern line, and upon the coast of the Gulf of Mexico, there lies a region from which the sad experience of the last summer shows reports are needed to warn our ports against such storms as that which recently devastated the southwestern coasts. But little progress can be made in the study of the practical meteorology of the Pacific coast while the scant stations which now dot the Pacific line are all from which information can be had. North and west of the great lakes some of the richest territories of the United States cannot be properly forewarned of coming changes until the lines of stations can be carried farther westward. Over the whole interior west of and in the Mississippi Valley the populations are impatient for premonitions, which must be delayed until the advancing telegraph-lines have pioneered the way for stations, reports from which must first be had. For the interior east of the Mississippi, and for the districts near the great lakes, reports for study cannot be too full or too numerous for the proper protection of the great agricultural and commercial interests. Experience has shown that a storm once fairly within the scope of the stations of this office, the study-charts can hardly fail to indicate in their ceaseless sequence the place of its existence, its extent, and something of its probable march. It is a duty to give that scope such field as will make it most effective.

The service of the West India stations has had something of the imperfection due to their recent establishment. The telegraphic communication between them has been but for a short time accomplished, and it has been frequently interrupted. The observers cannot be held to that rigid rule which makes the regular reports of the service throughout the United States at once prompt and reliable. As time goes on, however, and the work takes permanent shape, when the reports shall be received at the hours due, and their indications understood by tried experience, it seems almost impossible that the great hurricanes which pass the stations should precipitate themselves unheralded on our coast. An instance of the absolute necessity of reports from these stations has

been given by the memorable cyclone of September 16, 1875, which, but for a single brief report from a single station in Cuba—no other West Indian reports being on that day received—would have passed through the Gulf and fallen on our southern coast unannounced, as similar storms have done in preceding years. A solitary warning of the existence of the hurricane at Santiago de Cuba, studied in connection with subsequent reports from Havana and Key West, enabled warnings to be given many hours in advance at the ports of Mobile and New Orleans of the probable presence of the cyclone in the Gulf of Mexico and of the danger of its approach.

The utility for meteorological purposes of the sea-coast service stations of the signal service in connection with the life-saving service, and located in the life-saving service stations, has been tested in the year elapsing since the date of the last annual report. These stations have the important advantage of being directly connected with this office by the telegraphic wires of the signal service, an arrangement which renders it possible to receive from any one or all of them reports of any character, at any moment of time. The reports from these stations are often of the first importance. They are frequently found to differ markedly from those had from stations only a few miles distant in the interior. Giving the character and direction of the sea-swell on the coast itself, they have enabled opinions to be formed as to the approach and distance of coming or passing storms. A better knowledge of the force and real direction of the winds at sea can be here had than can be gathered from inland reports. The cases are not infrequent in which, by such and the other data reported, the march of a storm can be traced along our coast from station to station, connected as all of them are by telegraphic wires under the control of the service, with exactness. It can so be judged some hours in advance what ports will be next threatened, or between what ports the coast navigation will become dangerous.

The systematic study of the data thus regularly collected at numerous points upon our coast will aid in establishing generalizations of value. An incidental use of the reports there had has developed itself by the fact that, published in the daily journals, they have been found to enable shippers interested in the coasting trade to judge for themselves on any day the character of the weather along the coast, and thus to know approximately the location of their vessels and the conditions under which their voyages are making. It begins to be possible to judge sometimes the character of voyages making farther out at sea.

A further reference to other uses of these stations is made in this report. The sea-coast service is considered as having so fully established its utility, and is capable of being made so useful, that its gradual extension is recommended. The great coasting interests moving along the northern and New England coasts ought to have the benefits of its aid.

As the lines of telegraph constructed in pursuance of the acts of Congress have extended along the southwestern and Indian frontier and over the deserts of the interior, the plan has been to make the stations upon them stations for meteorological observation and report. The field of study has been thus enlarged to cover regions where it was before impossible, and of the meteorology of which very little was known. While but scanty reports have as yet been had from the stations up to the time of reporting, the utility of those received is manifest. Each aids in the study of the whole system of reports, and adds

to the accuracy of the generalizations sought to be established by it. The reports from the stations established on the Indian frontier of Texas have already indicated a relation between the direction of the winds in the interior and those which sometimes prevail with violence upon the coasts, which, while it might have been before surmised to exist, had not been shown to do so.

It is greatly to be desired, for the protection of our Gulf commerce, that arrangements should be made with the government of Mexico by which daily reports of meteoric changes should be had from the Mexican Gulf coast. An increase of stations upon the Pacific coast between the ports of San Diego and Portland—an increase which the scant appropriation at the control of the Office has hitherto not permitted—could hardly fail to permit such announcement of meteoric changes as would be of practical importance to the great commercial interests upon the Pacific.

The northern lines of stations, extending from Pembina and Fort Garry, by the Upper Lakes and Canada, to the extreme northeast at Halifax, have been useful, the reports had from them giving often the first premonition of changes of temperature, accompanying areas of high barometer extending southward, and enabling storms, which would otherwise too soon be lost to view upon the study-charts of the Office, to be traced in their course over the eastern part of the continent.

The reports of barometric readings, taken at stations in the interior west of the Mississippi and upon the great interior plateau, have been lessened in their value, by the fact that the correct reduction of the readings to the hypothetical readings at the sea-level has not been satisfactorily determined. The effort to remove this difficulty has been continued.

The uses of the stations in the States east of the Mississippi have been sufficiently referred to in preceding reports.

Further action has been had during the year to secure the practical results of the proposition adopted at the congress of persons charged with meteorological duties assembled at Vienna in 1873, and to the effect that it is desirable, with a view to their exchange, that at least one uniform observation of such character as to be suited for the preparation of synoptic charts be taken and recorded daily and simultaneously at as many stations as practicable throughout the world.

Special correspondence had by this Office and by authority of the Department with scientists and chiefs of meteorological services representing the different countries, had at the date of the last annual report, resulted in arrangements by which a record of observations to be taken daily, simultaneously with the observations taken throughout the United States and the adjacent islands, is exchanged semi-monthly. These reports are to cover the territorial extent of Algiers, Austria, Belgium, Great Britain, Denmark, Dutch Guiana, France, Germany, Italy, Japan, The Netherlands, Sweden, Norway, Portugal, Russia, Spain, Switzerland, Turkey, and British North America. On July 1, 1875, the daily issue of the printed bulletin of international simultaneous reports was commenced at this Office, and has been since maintained. A copy of this bulletin is furnished to each of the co-operating observers. (Paper 40.)

The results to be had from the reports thus collated are considered as to be of especial importance. The bulletin combines, for the first time of which there is record, the labors of the nations in a work of this kind for their mutual benefit. There is needed only the assistance, to be had from the naval forces of the different powers, to extend the plan of report upon the seas, to bring within the scope of study observations

practically extending around the northern hemisphere. This assistance will be sought.

The Office has to acknowledge in this connection the cordial and valued co-operation of the meteorological services of the different nations, represented as follows: Russia, by Prof. H. Wild, director of the Imperial Central Physical Observatory at St. Petersburg; Turkey, by A. Coumbary, effendi, director of the Central Observatory at Constantinople; England, by Robert H. Scott, esq., director of the Meteorological Office, London; Austria, by Prof. Carl Jelinek, director of the Imperial and Royal Central Meteorological Institute at Vienna; Belgium, by Prof. E. Quetelet, director of the Royal Observatory at Brussels; Denmark, by Capt. N. Hoffmeyer, director of the Royal Danish Meteorological Institute at Copenhagen; France, by M. U. J. LeVerrier, director of the observatory at Paris; Algiers, by M. le général Farre, commandant supérieur du génie; Italy, by his excellency the minister of agriculture, industry, and commerce; The Netherlands, by Prof. Buys Ballot, director of the Royal Meteorological Institute of the Netherlands at Utrecht; Norway, by Prof. H. Mohn, director of the Royal Norwegian Meteorological Institute at Christiania; Spain, by A. Aguilar, director of the Royal Observatory at Madrid, and Don Cecilio Pujazon, director of the Naval Observatory at San Fernando; Portugal, by J. H. F. de Silveira, director of the observatory of the Royal Polytechnic School at Lisbon, and J. C. de Brito Capello, his successor; Switzerland, by Prof. R. Wolf, director of the observatory at Zurich, and Prof. E. Plantamour, director of the observatory at Geneva; Dominion of Canada, by Prof. G. T. Kingston, director of the Magnetic Observatory at Toronto; Germany, by Prof. C. Bruhns, director of the Royal Observatory at Leipsic, and Prof. G. Neumayer, hydrographer to the government; Sweden, by Prof. R. Rubenson, director of the Royal Swedish Meteorological Institute at Stockholm, and Dr. H. H. Hildebrandsson, of the Upsula Observatory; Greece, by Prof. J. F. J. Schmidt, director of the Royal Observatory at Athens, and numerous observers in their individual capacity.

The concurrence of so many nations seems to put beyond question the practicability of securing a daily and simultaneous report of the meteoric changes over the greater portion of the earth's surface.

The opinion has become so general among scientific men that it is necessary to study the atmosphere of the earth as a unit, that skilled and energetic colaborers are everywhere found. Co-operation is sought from other nations as rapidly as the facilities of the Office permit. It is not necessary, nor is it possible, to dwell here at length upon the results to be hoped from this undertaking. It will be one of the chief among them if it secures the friendly co-operation of the world in a labor for the world's benefit. The accompanying charts indicate what it has already made practicable, and foreshadow the progress possible in the future. (Paper 41.) There is little danger that the work, once undertaken and sucessfully prosecuted for the period of a year, will be thereafter willingly abandoned by those who have stood side by side in its execution.

The average number of daily simultaneous observations now made abroad is two hundred and sixty-eight. The charts herewith exhibit the locations of the stations from which the series are received. The co-operation of the different nations given, as above described, renders the additional cost to the United States of the grand system of reports it opens only that of the cost of the preparation, paper, and printing of the International Bulletin, a cost which would have to be met in great

part for the proper preservation of the records themselves, even if the bulletin was not distributed. It is doubtful whether so extensive a record was ever before had at so trivial an expense

On January 1, 1874, the distinguished secretary of the Smithsonian Institution, Prof. Joseph Henry, proposed, in pursuance of a plan agreed upon, to place in the charge of this Office, from that date, the very extensive system of meteorological reports made by voluntary observers in all parts of the United States, which, organized by the Smithsonian Institution in 1848, had been successfully conducted under its management for twenty-six years. With the approval of the Secretary of War, the charge, thus courteously tendered, was accepted. The numerous voluntary observers, who, prior to the date above-mentioned, reported to the Smithsonian Institution, have since that date reported regularly to this Office, and their reports are entered on its files.

The system of voluntary meteorological reports for the United States, becoming by this action the voluntary system of this Office, has been since increased by the tender and acceptance of reports made by additional observers. These reports are of observations made at 7 a. m., 2 p. m., and 9 p. m., local time, at the different stations named in Paper 12 herewith. Papers 50 and 51 are the forms adopted by this Office upon which observations of this character are now entered. On June 19, 1874, the very courteous proposal was made by the Surgeon-General of the Army, Brig. Gen. Joseph K. Barnes, brevet major-general, U. S. A., to place at the disposal of this Office, after having extracts made from them at the Office of the Surgeon-General, the extensive series of observations made by the medical officers of the Army at the different military posts and stations.

These reports, the continuation of the series commenced by the Medical Department in 1819, are, like those of the Smithsonian series, from observations made at 7 a. m., 2 p. m., and 9 p. m. The proposal of the Surgeon-General was accepted, in a communication of date June 26, 1874. (Papers 27*a* and 27*b*.) The series of the Medical Department is now regularly received and entered on the record-files of the Office. The series at present numbers one hundred and two. The record of observations is as the form herewith, (Paper 52.)

The total of daily reports filed at the Office of the Chief Signal-Officer now numbers as follows: Total number of daily-service simultaneous telegraphic reports, one hundred and nine; total number of international daily simultaneous reports, two hundred and sixty-eight; total number of reports of voluntary observers, three hundred and ninety-three; total number of reports of Medical Corps of the Army, one hundred and two; total number of reports of Medical Corps of the Navy, five; making a grand total of eight hundred and seventy-seven daily reports received regularly for discussion.

The subject of the construction of a building, to be fire-proof, and properly arranged for the duties of the Signal-Service, and for the preservation of the records, now become very valuable, and which, if destroyed, cannot be reproduced, is respectfully commended to the consideration of the Secretary of War.

The data thus accumulating on the files of this Office, and to the extent of which reference has been previously made, have afforded scope for generalization, differing from and, perhaps, more extensive than any before had by any one nation. The number of reports received daily and unceasingly have necessitated a constant labor to keep up, in the discussion of them, to the dates at which they are recorded, in

order to prevent an accumulation which, by its mass, might lessen their usefulness. The published daily study-charts of the Office, and the monthly review, with its charts of generalizations, are examples of this work. The study-charts, exhibiting a study of the data telegraphically received on each day; the monthly review, combining the results had from these data and those received from other sources for each month during the year. It has thus been in the power of the Office to lay before scientists and the public, at the close of each day, if necessary, and at the close of each month, and of each year, a summary for the period then terminating.

The labor of referring to the individual records in figures, which after a time becomes almost impracticable, is thus rendered unnecessary on the part of those who receive those papers. The charts of the average direction and velocity of movement of areas of low barometer; charts of the average barometric pressures at the hours of tri-daily report; charts of wind-direction found most frequent at the different stations before rain-fall; charts of rain-frequencies for the different months, are examples of other studies of generalization. Studies of this character and incidental to these, which have in view the prennouncement of storms or other meteoric changes, furnish results valuable for practical uses.

It is by studies of this kind and in this great field of research that the hoped-for rules, each of which is to add its aid in the effort to attain precision of forecast and knowledge of climatology for the United States, are to be elaborated. It is by such rules and such knowledge, slowly but each year improving, the widest benefits of the service are to be sought. They will follow the practical use by the people themselves of the information gained through it, either in their attempts to have foreknowledge of coming changes from the study of their own instruments, or by supplementing that study by reference to the daily-published bulletins and reports of this Office. The farmer will not cultivate his fields less wisely if he may be able to judge, by the use of simple instruments, better than now of the coming changes that will forward or retard his work. The seaman will not feel less safe if conscious that his own observations will assure him something as to coming favorable or dangerous winds. There is hardly a class of the people, or an industry they practice, but to which good may, in this way, and from such studies, result. Enough has already been done to prove that it is possible.

The policy pursued by the Office of diffusing as widely as possible, and in condensed form, the information in its possession, and that of extending the scope of its observations, enables it to benefit, in studies like these, by the labors of students everywhere. The results returned to it in the able suggestions, based upon deductions had from the charts and data, by distinguished scholars, who thus become its associates in its own especial labors, aid in forming the rules on which its duties rest.

As rehearsed in the last annual report of the Chief Signal-Officer, the daily official deductions constituting the tri-daily synopses and probabilities, as they are styled, and the especial deductions in pursuance of which the orders for the display of cautionary signals at stations are given, when necessary, are based upon the regular meteorological reports of the service stations of observation, transmitted tri-daily, by telegraph, after passing over a system of telegraphic circuits, so arranged as to at once concentrate the reports at this Office, and to distribute, in doing so, certain numbers of them at designated cities and posts. Special reports are demanded from any station, or number of stations, whenever additional information is required, as to impending disturbances. The sy-

nopses are those of the meteoric conditions existing over and near the United States for each period of twenty-four hours, terminating at the hour for each general report. The probabilities are announcements of the changes considered from the study of the charts, in connection with such rules and generalizations as the experience of the Office and the study of meteorologists seem to have determined as probable to happen within the twenty-four hours then next ensuing. The study for each issue requires the draughting and study of four charts; these charts to exhibit chartographically the data furnished by the simultaneous reports of the one hundred and nine stations, heretofore referred to, located in the United States on the Atlantic and Pacific coasts, the coasts of the Gulf and of the Lakes, in the western interior, and in the Dominion of Canada, Nova Scotia, Newfoundland, New Brunswick, and the West India Islands. The charts are as follows: (*a.*) A chart of barometric pressures, the temperatures, and the winds, together with the wind directions and velocities at the different stations. The character of the precipitation, if any, occurring at the time of the report, and the amount since the time of the last preceding report. This chart exhibits barometric pressures and the temperatures in their relation to districts and territory and to each other, by a system of isobaric and isothermal lines inscribed. The wind-directions are shown by arrows at the different stations. (*b.*) A chart of the cloud-conditions prevailing over the United States, in which the different varieties of cloud reported at the stations appear by symbols. On this chart are also indicated the weather, as reported at each station at the time of each report, the direction of movement of lower and upper clouds, and each morning the minimum temperature of the preceding night in relation to districts of territory. The cloud-areas appearing upon this chart are surrounded by an outline to enable their extent and probable movement to be considered. (*c.*) A chart of the relative humidities over territorial districts, with the temperatures at the several stations. This chart of humidities enables studies to be made for territorial sections, the difficulties attending the study of observations of this character being obviated to a very considerable extent by the intercorrection of the stations among themselves, and by the great extent of the regions over which the readings are made simultaneously. In fields so great, purely local conditions in part disappear, or affect very little the general result. (*d.*) A chart of barometric pressures exhibits, for purposes of reference, by lines of no variation, the districts of territory over which the barometric pressure has increased, and those over which it has diminished, in each averaged period of eight hours in the twenty-four hours terminating at the hour of the report. (Papers 43 to 46.) The study of these charts requires that they should be compared with each other, and with the antecedent charts of a similar character prepared at the times of the preceding reports. The total of the readings of the different instruments inscribed on each series of charts, as exhibiting the elements of the general meteoric condition, reaches the number of two thousand one hundred and eighty. The duties of the preparation of these charts, and of the reports based upon them, have been under the immediate charge of Assistant Cleveland Abbe, A. M.; First Lieut. Robert Craig, acting signal-officer and assistant; First Lieut. H. H. C. Dunwoody, acting signal-officer and assistant; and Assistant T. B. Maury, A. M., who have been relieved and alternated in the discharge of these and other special duties at such times as directed under the instructions of the Chief Signal-Officer. The daily series of study-charts are twelve in number; the yearly series, four thousand three hundred and eighty. The field which a series continuing

for years opens for investigation is almost without a limit. Additions to the charting are made as it is found it can be improved.

The statements of synopses and probabilities have been furnished for the press at regular hours—1 o'clock a. m., 10.30 a. m., and 7.30 p. m., daily, and under the same rules as in preceding years. There has been no failure in the delivery of any report during the year. The total number of statements thus issued for publication has been one thousand and ninety-five. These have been telegraphed at the moment of their issue to the principal cities, and have appeared in some form in almost every journal in the United States. The great diffusion thus given this intelligence has, of course, its advantages. The Office has found itself, however, exposed to unexpected difficulties.

It has been the plan of the Chief Signal-Officer that these published statements should never appear without the publication of a portion of the data on which they are founded, and that they should be published with, at the least, the full rehearsal of the synopsis of the conditions preceding the forecast, and the full publication of the forecast in the words in which it is issued. Every press association receiving the statement from the Office receives it on the condition that, if used at all, it shall be printed in full as furnished for the journals, and each has formally accepted the condition. Thus given to the public, the meteoric conditions, on which the announcements are based, can be seen—the statements are better understood—and can be correctly judged by local indications on points often so doubtful that they are stated with hesitation. The haste with which the great journals are issued does not always permit this, and the Office sometimes finds itself held responsible for what purports to be its utterances, so garbled in the publication as not to be recognizable. It is but just to American journalists to say that the instances are rare, however, in which, when attention has been directed to these errors, they have failed to be corrected.

A careful analysis of these statements of the Office, made for the year terminating June 30, 1875, and a comparison of the meteoric conditions occurring within the twenty-four hours and within the district to which each statement has had reference, has given an average of 87.4 per cent. as verified. The mode of comparison is set forth in Papers 22 and 23 herewith. A comparison of this percentage with the averaged percentage of preceding years exhibits a continuing improvement in accuracy with each succeeding year. The popular faith in the announcements of the Office, now in the fifth year of their issue, has remained unchanged. It has not at any time been sensibly lessened by the errors which now and then direct attention to the fact that in the present condition of science premonitions having in their scope a territory so great as that of the United States cannot always be correct for every part of a district.

The close watch kept upon this Office, the popular knowledge of its duties, and its reasonable success in the discharge of them, cannot, perhaps, be better evidenced than by the criticisms to which it is subjected if an error now and then occurs in a work in which a few years ago any success was by many deemed impossible.

The systematic instruction of officers of the Signal Service to fit them for duties of this description has been continued, though greatly interfered with, by the small force charged with the now very extensive duties of the service in its different branches. The duties in which the officers are engaged, each in his sphere, and each of which contributes its share to the success of the whole, are such as necessarily lay well the foundation for the courses of especial study and practice. The courses once commenced, the skill increases with acquired experience. The studies

to which reference has been hitherto made, and the data condensed for generalization, improve each year the material before the student for consideration. The improving accuracy of the reports seems to evidence the correctness of the plan of study adopted.

The display of cautionary signals has been had, when necessary, by day and night, during the year ending June 30, 1875, at the following principal ports and harbors of the United States, located upon the lakes, the Atlantic, and the Gulf coasts: New Orleans, Mobile, Jacksonville, Savannah, Charleston, Wilmington, Cape Hatteras, Norfolk, Cape Henry, Baltimore, Cape May, Peck's Beach, Atlantic City, Barnegat, Squan Beach, Long Branch, Sandy Hook, New York, New Haven, New London, Wood's Hole, Boston, Portland, Eastport, Oswego, Rochester, Buffalo, Erie, Cleveland, Toledo, Detroit, Port Huron, Alpena, Grand Haven, Chicago, Milwaukee, Escanaba, Marquette, Duluth, Key West, Thatcher's Island, Kittyhawk, and Tybee Island.

During this period one thousand and twenty-three signals have been ordered, counting each separate display at each port a separate signal, in anticipation of sixty-seven dangerous storms. Of this number 76 per cent. have been afterward reported as verified, by the occurrence of dangerous winds at the points where the signals were displayed, or within the radius of one hundred miles from these points, as set forth in the rules of the Office. The signal ordered by this Office is always cautionary in its character, not announcing positively a storm will come, but that the indications are sufficiently threatening to call for caution, both as to going to sea and for preparation for rough weather, if vessels are about to sail.

It is one of the most difficult tasks which falls to the Office to determine in advance over what ports to be named, to the exclusion of others, an observed storm-area will pass, and in such manner as to be accompanied at those ports with a given wind-velocity. Within the same area the winds differ in force at different points. There is the danger that warnings unnecessarily given may delay the movements of shipping. A heavy responsibility is incurred if the warnings are not given when they ought to be. Time, increasing experience, and increasing facilities will permit greater accuracy. There will be higher success as the data of the Office become full enough to enable it to be judged what local wind-velocities are to be expected to follow the different meteorological indications in the different districts at the different seasons. The experience of the few years past which has shown with what precision storms may be charted as they pass over the continent, or sweep its coasts, and that something may be known of their location, even when far at sea, gives assurance of progress.

The effort has been continued during the year to exhibit as widely as possible in the agricultural districts the results of the daily office studies, in the form of printed forecasts, for the benefit of the agricultural populations throughout the United States. The continuance of this work has seemed to be warranted by the favor with which it has been received. The effort to cover so wide an extent of territory has made the labor great. By an arrangement with the Post-Office Department, six thousand three hundred and sixty-four printed farmers' bulletins, on which have appeared the daily reports of this Office, have been distributed and displayed in frames daily, at as many different post-offices in different cities, villages, and hamlets in different States. At midnight of each day the midnight report of the Office for the ensuing day is telegraphed to twenty centers of distribution located respectively as follows: At Albany, N. Y.; Augusta, Ga.; Bangor, Me.:

Boston, Mass.; Buffalo, N. Y.; Burlington, Iowa; Chicago, Ill.; Cincinnati, Ohio, Detroit, Mich.; Leavenworth, Kans.; Logansport, Ind.; Memphis, Tenn.; Montgomery, Ala.; Nashville, Tenn.; New Orleans, La.; New York City, N. Y.; Pittsburgh, Pa.; Philadelphia, Pa.; Springfield, Mass.; and Saint Louis, Mo.; they are also issued at Washington, D. C. The relative location of the centers of distribution is exhibited on the chart herewith. (Paper 42.) They have been carefully selected as located in the midst of the denser agricultural populations of the United States, and at points where facilities of communication enabled the surrounding districts to be most rapidly supplied. The telegraphic report received at a center of distribution is at once printed by enlisted men of the Signal Service, on bulletin forms provided for that purpose, enveloped as rapidly as printed, addressed to each designated post-office within the district to be supplied, and which can be reached by the swiftest conveyance by the hour of 2 p. m. of the date, and are then placed in charge of the Post-Office Department, under an arrangement by which each postmaster receiving the bulletin has the order of the Postmaster-General to display it instantly, in a frame provided by this Office for the purpose, and to report the fact of its receipt and of its display in writing to the Chief Signal-Officer.

The average hour at which the bulletins have reached each of the different offices, and have been displayed in the frames, has been 11 a. m., a period of ten hours thus elapsing from the time at which the information had at the central office has left that office to the time at which it has been displayed in the midst of the farming populations, and at country villages in most of the States throughout the United States. It is difficult, without some consideration, to estimate the numbers of people and the varied interests it has been attempted in this way to benefit. It is found in the experience of the Office that the effort is appreciated by the fact that the failure of the bulletin to appear at any village where it has been customarily received rarely fails to be notified to this Office, with the request that it may be supplied. It seems not impossible that at some time in the future, as telegraphs ramify, economical arrangements may be made by the people of the different States by which information of this character may be distributed by telegraph to the places at which there are offices. The Office is in correspondence with one hundred and twenty-three agricultural societies, in reference to its duties, and seeks information from them as to the manner in which those duties can best benefit the farming populations in the regions they represent.

The bulletins will improve for the uses for which they are intended as the experience of the Office permits the information they exhibit to be supplemented by brief rules for the guidance of agriculturists and others, as to the weather conditions probably to follow certain meteoric changes in the different territorial districts of the United States. It is not impossible that suggestions can be given as to the practical operations of farming it is wise to undertake with the differing atmospheric conditions; as to gather the crops for harvest with the certain winds found to be accompanied in any particular district with the least humidity; to plant with other winds, and the conditions which indicate the probable approach of rain. With each year the popular knowledge of the uses of the bulletin and some increased interest in, and study of, meteorology renders the farming communities better able to judge of its correctness and to benefit by its contents.

It is contemplated, as the work of the Office progresses and generalizations can be given, to add to the bulletin such brief rules as may be developed in regard to its uses in connection with such instruments as

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may be had for local use; together with such suggestions as may relate to the crops had in hand at the different seasons of the year, with reference to the atmospheric conditions then habitually occurring.

The description of this work will not be complete without reference made to its economy. At a recent session of Congress an estimate was submitted to one of the committees, the plan of which shows that if the total cost of each bulletin-station at which the bulletin is displayed at each different post-office, hamlet, village, or city, were computed to be thirty-one cents per day only, the sum so resulting would meet every expense caused by the Signal Service. A very little saving of any one crop or to any interest made on any one day in the vicinity of the station, supposing nothing to be saved on any other day in the year, would more than compensate for the expenditure.

The river reports of the Office have been continued during the year. As in preceding years, the changing depth of water in the river-channels of the principal rivers has been recorded and published daily at certain points for the benefit of the commercial populations along the river banks and to enable river-shipping to be moved with intelligent foreknowledge of the probable depths to be found at the different points to be passed in the voyages. The simple and inexpensive river-gauges established by the service have been found to answer well their purpose. The reports are useful to the river interests as having an official character.

The data had at this Office, though meagre, suffice to permit a foreknowledge of changes likely to happen, and enable useful warnings to be given of coming floods, ice-floods, and sudden and great rises or falls of the river levels. As instances occurring during the year, it is mentioned that, at the time of the floods in the Mississippi, in consequence of the unusual rains of last summer, warnings could be given daily from the Office, with fair accuracy, as to the rises to occur at the principal cities, in the vicinity of which they were likely to cause damage.

While it cannot be determined what has been the value in individual cases resulting from the information given by these reports, or what has been the aggregate value, it is sufficient to state, for the purposes of this paper, that without them no systematized information upon the subject to which they relate would have reached the populations interested. The manner in which these reports have been received by the communities especially concerned, and the official requests of boards of trade and others engaged in river commerce, for the increase of the number of them, have given evidence of their usefulness.

In order to render them as useful as possible a careful reconnaissance of the principal western rivers was directed to be made, to determine a certain level or depth of water at different points, a rise above which is held to be dangerous to river interests along the courses of the river, and which has, for this reason, been designated as a "danger level."

The report of First Lieut. A. W. Greely, acting signal-officer, who, under instructions from the Chief Signal-Officer, made a careful examination of the Mississippi, Missouri, Ohio, and Cumberland Rivers, accompanied the last annual report. Since the date of that report this work has been supplemented by additional information required to be reported by the sergeants in charge at stations on the rivers, and by data furnished from the special river stations.

The results are summarized in the paper herewith, (Paper 26,) the danger-line circular, which was issued from the Office, in the form herewith, on March 15, 1875, and was given, under the order of the Secretary of War, a wide diffusion throughout the great river valleys of the

interior. Copies of this paper were forwarded to the mayors or other proper authorities at two hundred and seven villages located upon the different rivers. It was proposed, in each case, that a simple river-gauge, upon the plan of the Signal-Service gauge, be established at each village, and the proposal was made to collate upon the circular in such form as to be of most utility, the data thereafter to be regularly had from it, and reported to this Office. Paper 29 exhibits the correspondence.

The Chief Signal-Officer is confirmed in his opinion, that, with a proper study of the river floods and with stations properly placed, reporting at times of especial danger, it can be made almost impossible for a flood to follow a river course without notice of the daily probable rises at the localities threatened, and notice given of its coming in advance.

A brief examination of the charts of changes of the river-levels herewith (Paper 49) will exhibit the fact that the river-rises to occur at the different localities can be judged of frequently as to the time at which they will occur and their extent, by the condition existing at points sometimes far distant, above the point at which the rises are anticipated as to happen; certain river-depths at particular points being followed as consequences, and after certain lengths of time, by proportionate rises at points lower upon the river's course.

The data accumulating in a series of years would permit studies of this kind to be valuable. They can be much more carefully analyzed. In connection with studies of this character, the charts of river-basins, which enable it to be determined during the existence of any flood what rivers will probably be affected by precipitation then occurring, are found to be of value in establishing correct prognostications. The plan for the study of the progress of the flood from day to day was referred to in the last annual report.

The daily reports of the surface and bottom water temperatures at points upon rivers, lakes, and on the sea-coast, have been continued during the year. These reports are furnished at the request of Professor Spencer F. Baird, United States Commissioner of Fish and Fisheries, the object had in view being to determine the proper rivers and lakes in which to place different varieties of food-fishes. It is necessary for this purpose to ascertain the extremes and means of the water temperatures in the different localities. This series of reports has now been continued for three years.

The display of bulletins of river reports during the year has been at the following stations: Cairo, Cincinnati, Davenport, Dubuque, Keokuk, La Crosse, Leavenworth, Louisville, Memphis, Nashville, New Orleans, Omaha, Pittsburgh, Shreveport, Saint Louis, Saint Paul, Vicksburg, Yankton, Dak., and Helena, Ark.

The series of reports being the announcement from day to day of such probable approaching changes of temperatures as would be likely to cause the closing of the canals by freezing, or, in other cases, as would open them, were continued during the days of closing canal navigation in the past year. The commerce moving upon the canals, as their closing draws near, is sometimes of greater value than at any other season of the year. The canals are then thronged with hundreds of laden canal-barges, and the market-values at the great cities, influenced by the prospect that the merchandise or grain with which they may be laden will reach or fail to reach the points for which it is intended, are received with satisfaction by the commercial associations of the cities, and constitute for the months of November, December, and January, one of the regular

issues of the Office. Papers 37 to 39 exhibit specimens of river, special river, water temperature, and canal reports.

The forms of the bulletins published for the use of the farmers and seamen, for the river reports, for the canal reports, and for the other varied interests, which the information borne upon them is intended to benefit, change gradually with increasing knowledge and facilities. Each form has, however, its object, and cannot be changed until long experience has shown it safe to make the changes. The regular printed publications of the Office have been issued during the year as in the year preceding. Copies of these papers, the Office Weekly Weather Chronicle and the Office Monthly Weather Review, sufficiently illustrate their character. (Paper 20 & 21.) The scope of the Review has become extensive, with the increase of the number of reports received, all of which are valuable for reference, and a general study of which enters necessarily into the study for the preparation of each Review.

The three charts which accompany each issue of the Review exhibit the uses of these data. Each of these charts is to some extent the reduction of data first chronicled on ninety separate study-charts for the month. It will be readily understood how much this constant monthly reduction simplifies the work of generalization for the year. The wide circulation given this Review meets in part the wish for generalizations prepared by this Office, while the receipt of a copy by the hundreds of voluntary observers, now its correspondents, is considered by them at once a sufficient acknowledgment of, and compensation for, their labors. Assistants Abbe, Craig, Dunwoody, and Maury have alternated in the charge of the preparation of these papers and of the charts which accompany them.

The preparation of the matter for the reports, the "synopses, probabilities, and facts," commenced in 1872, has been continued. These volumes contain the records of all the tri-daily telegraphic reports received at the Office, from the dates at which such records commenced; the tri-daily charts based upon the study of each report; the synopses and probabilities on that date issued, with a statement of the facts or meteoric conditions which subsequent reports have shown as actually existing during the time for which each forecast was made. They are useful for purposes of exchange, and constitute a meteoric record, more full, perhaps, than any other now issued. A number of charts have been prepared in the map-room of the Office under charge of Lieutenant Henry Jackson, acting signal-officer and assistant. A series of twelve charts exhibiting, for each month and for each station, the general wind-directions of the winds found in each month and at that station to be most frequently followed by rain, are herewith, (paper 48.) These charts have been prepared by comparing the wind-directions noticed at each station at the hours for the taking of each of the observations made for the daily local and daily simultaneous reports with the weather recorded at that station at the next report. From the detailed information thus obtained the accompanying general charts of winds preceding rain have been constructed. The number of years during which reports have been received from each station are shown by figures. These charts are believed to exhibit approximately those wind-directions which, in each month, are most likely to be followed by rain. Thus, other things being equal, if in any month the wind-direction at any place is found to be within the quadrant inscribed in blue, for that place and for that month, upon the chart, this fact may be considered an indication that rain is more likely to follow at that place within the twelve hours next ensuing than if the wind-direction is found

to be from some point not within the quadrant. If, on the other hand, in this month the wind-direction is found at any station to be within the quadrant inscribed in red upon the chart, this fact may be considered an indication that rain is less likely to follow than if the wind is found to be from any point not within this quadrant.

The uses of charts of this character in connection with the tri-daily study-charts of the Office, for the purposes of forecasts, will suggest themselves. It is hoped a wider usefulness may be found for them as aiding in the local studies, such information supplementing that furnished by the reports and in the other daily issues of the Office, will make possible among the farming and other populations.

Thus the regular daily reports of the Office having announced rain as probable for any territorial district, the probability of precipitation to occur at any point within the district will be better judged by the information to be had from the local instrumental indications there, when supplemented by a knowledge of the winds more frequently preceding rain at that place and at that season.

Another series of charts exhibits the averaged barometric pressures, as reduced to sea-level and telegraphed to this Office, found to be at each station of report for each month, at each of the hours of tri-daily report, 7.35 a. m., 4.35 p. m., and 11 p. m., Washington mean time.

A certain barometric pressure being found or reported to exist at any place, in any month, at the hours given, it can be known, by reference to the charts of average pressures, whether the pressure noted is above or below the average pressure as reported during the years to which these charts relate, at the place, at the time, and at the season. Papers 47[a] and 47[b] are specimens of these charts for the month of January.

Reference was made in the last annual report of this Office to the wide diffusion given its reports. It was then estimated that by the publications of this Office, which have been heretofore referred to, and specimen copies of which accompany this report; by the signals displayed by day or at night at times of probable danger; by the announcement of probable changes of weather in the synopsis and probabilities furnished thrice daily to the press; the farmers' bulletin exhibited at so many villages and hamlets in the interior; the river and canal reports made with reference to river and canal interests; the bulletins and data exhibited at all the great cities and ports; the symbol maps displayed in boards of trade rooms and rooms of chambers of commerce, the weekly Chronicle and monthly Weather Review furnished to agricultural societies, commercial associations, and correspondents of the Office; the daily weather maps, the monthly charts, and finally the charts condensing the results of years of observation, the information emanating from this Office was received in some form daily at not less than one-third of all the households of the United States.

There is no reason to imagine that this diffusion has been lessened within the year just past. The effort has been and continues to be to make this information as valuable as possible. The first uses of the studies of the Office and of the data on its files accomplished, the records condensed in the processes of that study furnish, for the more careful study of scientists everywhere, papers equal perhaps in their form and in the regularity of their publication to those issuing from any similar institution in any country.

The work in the instrument and model room, referred to in preceding reports, has been steadily continued. Five hundred and twenty-one meteorological instruments have been carefully compared during the year with the standard instruments in the instrument-room of the

Office, and four hundred and fifty have been issued thence after comparison. A model rain-gauge, a model anemoscope, and a model mechanical barometer, all self-registering and arranged upon plans not known to have been before used, have been constructed at the Office, and are now undergoing the usual tests. Several additions have been made to the collection of self-registering instruments of foreign manufacture.

The very valuable collection of instruments now had by the Office has been useful, both by enabling it to be judged what progress has been made in other countries in works of this description, and by suggesting improvements in the construction of the standard self-registering instruments it has been attempted to provide for the United States. The use of the self-registering instruments already distributed to stations has been found to supply many important facts, of which cognizance could not otherwise have been taken.

An essential use of self-registering instruments to a service organized as is that of this Office, is that they will render it possible for the different instruments to be exposed with such similar conditions of level and shelter as will render the readings comparable and correct for any practicable purpose. The purpose of arranging an instrument to be at once simple, strong, and inexpensive, for the use farmers may wish to make of it, and for a general use, in connection with the daily bulletins, has been kept in view. A simple form of hygrodeik, upon the frame of which an aneroid barometer can be mounted, will probably be found best suited for this purpose. The readings of such an instrument, supplemented by some knowledge of local signs and by the information furnished in the bulletin reports of this Office, can hardly fail to enable those who will take the trouble to make them, to profit by a knowledge of coming changes better than they can now have.

The constant and exact work required at the numerous stations now connected with this Office renders it necessary that each station should be frequently and minutely inspected, the books and papers examined and the instruments compared with the standard instruments. Each station ought to be inspected at least once in each period of six months.

Eighty-one stations have been inspected during the fiscal year; ten of these upon the lakes were inspected twice. Lieutenants F. C. Grugan, A. W. Greely, and D. J. Gibbon have been employed upon this duty; the former throughout the entire year; Lieutenant Greely until transferred to other duty, and Lieutenant Gibbon until his relief from signal-duty. Paper 8 shows the date of each inspection and the names of stations inspected.

The sea-coast service of the signal-service has been before referred to in this report. At the date of the last annual report telegraphic lines on the sea-coast itself, and reaching from Sandy Hook to Cape May, and from Norfolk to Cape Hatteras, had been completed. They have been since in operation.

The extension of the line from Cape Hatteras by Cape Fear to Smithville, at the mouth of the Cape Fear River, is in process of completion.

The act of Congress requiring this service contemplates the establishment of signal-stations at life-saving stations and light-houses at points along the coast, in such manner that the coast and sea in their vicinity may be at once kept under observation, warning of approaching storms be given to vessels within signal distance, and information of disasters and other incidents occurring be rapidly conveyed to the chain of life-saving stations, to light-houses, ports from which aid may come in case of need, and to the central office. The lines are manned.

maintained, and operated by enlisted men of the signal-service. These have been taught to take and report meteorological observations, and, as signal-men, are practiced in both the Army and Navy codes, in the use of semaphores, and in that code of permanent flag-signals known as the international code, to enable them to communicate with the vessels of any nationality. Aside from its uses for meteorological purposes, the service has proven its usefulness during the past year in the cases of a number of disasters to shipping. In several of these it has been considered that very valuable vessels or cargoes were saved to those interested in them by the prompt information given at and by the aid called for from the proper ports or by the rapid communication kept up from the vicinity of the wrecks with those engaged in the saving.

The attention of the honorable Secretary of War was invited to these instances at the time. It has been believed that the values thus saved have been many times greater than the whole cost of the lines.

The sea-coast-service stations in operation have been at Sandy Hook, Long Branch, Squan Beach, Barnegat, Atlantic City, Peck's Beach, and Cape May, N. J., Cape Henry, Va., and Kittyhawk and Cape Hatteras, N. C. The economy of the service can be judged of from the fact that, aside from the pay and allowances of the enlisted men employed upon them, the total cost of the maintenance and repair of the coast-lines for the fiscal year ending June 30, 1875, was at an average cost per mile of $5.50. The intended use of these lines for purposes of instruction and practice has been before referred to. Bvt. Capt. H.W. Howgate, acting signal-officer and assistant, has been in charge of these lines during the greater portion of the period embraced in this report. During the remainder of the period First Lieut. H. H. C. Dunwoody, acting signal-officer and assistant, has been in charge.

By an act of Congress approved March 3, 1873, the duty was imposed upon the Secretary of War of causing to be constructed a military telegraph from San Diego, Cal., via Fort Yuma and Maricopa Wells, to Prescott and Tucson, Ariz. The work of this construction was done under the direction of the Quartermaster's Department. Subsequently an act approved June, 23, 1874, directed the extension of this line from Prescott to Camps Verde and Apache, Arizona, and required certain reports and duties to be under the direction of the Chief Signal-Officer. An act approved June 3, 1874, authorized the Secretary of War to construct a telegraph-line in Texas and the Indian Territory, for the protection of the frontier against Indian and other depredations. On July 30, 1874, orders were issued from the War Department instructing the Chief Signal-Officer to assume charge, subject to the direction of the Secretary of War, of the construction, maintenance, and operation of the different lines provided by these acts. The act approved March 3, 1875, had further reference to these lines. (Paper 30.)

On August 19, 1874, First Lieut. Allyn Capron, acting signal-officer, was assigned to immediate charge of the construction of the lines in Texas and the Indian Territory, assisted by Mr. J. C. Van Duzer, as superintendent of construction. The time until the end of September was occupied by Lieutenant Capron in making the necessary preliminary arrangements for procuring details of men for working parties, transportation for men and material, and for prosecuting the work in his section. The detail of enlisted men and the transportation were to be sought from the department commander. An office was established at Denison, Tex., and that place became the principal depot of supplies for the line. In October a reconnaissance of the route to be followed by the line to Fort Sill, via Fort Richardson, was made by Lieutenant

Capron. A detail of one company of troops for construction work, with a limited amount of transportation, was ordered to report to him by the department commander. Contracts were made for poles to be delivered along a part of the route selected.

A detachment of enlisted men of the signal-service practiced in line-building, was ordered from Fort Whipple to report to Lieutenant Capron, and arrived at Denison early in November. The work of construction was actually commenced on the 20th of that month. During the months of December, January, and February, the work was much retarded by the unfavorable state of the weather and the small amount of transportation, together with other embarrassments. Forty miles of line were completed in these months. On April 5, 1875, First Lieut. A. W. Greely, acting signal-officer, who had been detailed for the purpose, assumed charge of the work. During the month of April additional details of enlisted men were furnished by the department commander, and at the end of that month several parties had been organized and were at work in the field, a few experts of the signal-service serving with each party. During the month of May, parties were employed upon the routes from Fort Richardson to Fort Sill, and from Denison to Fort Richardson. A total length of seventy-five and one-half miles of linewereconstructed in this month. During the month of June parties were employed on the routes from Fort Richardson to Fort Sill, from Denison to Fort Richardson, from Fort Richardson to Fort Griffin, and from San Antonio to Fort Clark. A total length of one hundred and twenty-six and one-eighth miles was constructed in this month. During the month of July parties were employed upon the routes from Fort Richardson to Fort Griffin, from Fort Griffin to Fort Concho, from Brownsville to Ringgold Barracks, and from Ringgold Barracks to Fort McIntosh. A total length of one hundred and eighteen miles of line was constructed in this month. During the month of August parties were employed upon the routes from Brownsville to Ringgold Barracks, from Fort Griffin to Fort Concho, and from San Antonio to Fort Clark. A total length of one hundred and thirty-eight miles of line was constructed in this month. During the month of September parties were employed upon the routes from San Antonio to Fort Clark, from Fort Griffin to Fort Concho, from Fort Concho to Fort McKavett, and from Fort Duncan to Fort Clark. A total length of one hundred miles of line was constructed in this month. The lengths of line completed during the four months named aggregate six hundred miles. Operating stations are located at Denison, Pilot Point, Jacksboro', Cambridge, Fort Sill, Fort Griffin, San Antonio, Fort Clark, Brownsville, Rio Grande City, Uvalde, Castroville, Fort Concho, and Fort McKavett. It is anticipated that by the close of the present year all of the points named in the act of Congress requiring the construction of the line, will be in telegraphic communication by the lines constructed and their connections with the civil lines, with the military headquarters at San Antonio. The officer in charge of these lines has made a general statement of the cost of construction and equipment, as to average one hundred dollars per mile, exclusive of the pay and allowances of the troops employed. They are upon routes considered to be among the most difficult for such constructions in the United States. Lieutenant Greely deserves commendation for the energy with which he has conducted the work.

On August 22, 1874, Second Lieut. Theodore Smith, acting signal-officer, was assigned to the immediate charge of the construction, maintenance, and operation of the lines in Southern California and Arizona.

Upon the arrival of this officer at San Diego, Cal., the lines completed in that Territory were transferred to his charge by the Quartermaster's Department. The lines then in operation extended from San Diego to Prescott and Tucson, a distance of five hundred and forty miles, connecting the following-named operating stations: San Diego, Stanwix, Maricopa Wells, Prescott, Tucson, Yuma, Phœnix, and Indian Wells. These stations were in charge of citizen operators. Extensive repairs of the lines were found immediately necessary, as the poles used in the construction were rapidly decaying. During the months of September and October a careful examination of the line was had by Lieutenant Smith, and arrangements were made for the construction of the extension required by law on the route from Prescott to Camp Verde, a distance of forty-five miles. Work was commenced on this section on October 24. On November 9, the line was completed to Camp Verde, and communication was opened to that point. On November 1, the services of citizen operators were dispensed with at all the stations except San Diego, Prescott, and Tucson. Their places were supplied by enlisted men of the signal-service, who had been sent for this purpose from the school of instruction at Fort Whipple, Va.

On January 15, 1875, the charges on commercial messages passing over these lines were, by authority of the Secretary of War, reduced, and made to conform to the rates fixed by the Postmaster-General, under the act of Congress, approved July 24, 1866. The reduction was large, and the monthly receipts from the line were necessarily affected. The amount of business has, however, been steadily on the increase, and the receipts of the lines are at this date nearly as great as before the reduction. The collection of material for the extension of the lines required by law was commenced in the month of November, 1874. Little progress was made, however, owing to the great distance from which it was necessary to draw supplies. In December, 1874, a reconnaissance of this route was made, and the line was located. The small appropriation made for this work was found wholly insufficient. Work was practically suspended until July, 1875.

In July and August, 1875, two parties were employed on the route from Camp Lowell to Camp Apache. By the act of Congress approved March 3, 1875, the construction of a line from Fort Marcy, (Santa Fé,) New Mexico, to Camp Grant, in Arizona, was authorized. On March 30, 1875, Lieutenant Smith was ordered to assume immediate charge of the construction, maintenance, and operation of this line in addition to his previous duties. On June 2, 1875, Second Lieut. Philip Reade, acting signal-officer, was ordered, by Special Orders No. 108, from the Adjutant-General's Office, to relieve Lieutenant Smith of his duties in connection with the United States telegraph-lines. Lieutenant Reade took formal charge of the same on July 18, 1875. A reconnaissance of the line from Camp Grant to Santa Fé, ordered in April, was delayed by the change of officers. It has, at this date, November 1, 1875, been just completed.

The stations upon the different lines thus above referred to are manned with operators enlisted for the signal-service. No difficulty has been found in enlisting for the work men sufficiently competent, who receive by their different allowances a pay about equal to that formerly had in the signal corps of the Army during the war of the rebellion. The fact that the lines of telegraph can be constructed by the labor of troops through regions of territory in the interior considered as among the most difficult for such constructions, together with the further fact that they can be maintained and operated by similar labor, has been

established. In considering the construction and maintenance of these lines by the United States in the interior and through regions where commercial lines cannot be profitably maintained, the measure may be looked upon as one of economy. The cost of sending mounted couriers with necessary messages between military posts or between the posts and the scant settlements along the routes in case of need, will probably more than equal the cost of the work. The lines are everywhere welcomed by the frontier populations through which they pass, and to whom they afford a facility for communication with the more thickly-settled States they had hardly hoped to possess. The connecting civil lines find an increase of their business from their connection with the military lines pushing far into the interior, which they do not fail to appreciate. The receipts for commercial messages transmitted over the lines of the United States make an item of importance in defraying the expense of maintaining them. The benefits to accrue to the regions through which they pass, to the military service of the United States, and to the country at large are many. Reference to these benefits was made in the last annual report of this Office. The hamlet, settlement, or post upon an established line is no longer isolated. Enterprise is encouraged and safety is assured by the power of summoning aid from near or far, if there should be danger, and by the quick communication with the rest of the world. If, for any reason, it is found not practicable or economical for the interests of the United States to permanently operate these lines, the good ends will not be the less attained. Civil associations will always be ready to operate them if assured of remuneration for the communications the United States is likely to transmit over the wires, together with that to be had from the business of the local populations.

For the meteorological duties of the Signal-Service the lines entering regions never before opened to the proper study disclose a field for research, the value of which, as giving increasing accuracy to the prevision of meteoric changes elsewhere, cannot be too highly estimated. The existence of the lines in the interior of Texas already permit warnings to be exhibited on the coast of that State, where they were before impracticable. The lines penetrating the interior, through New Mexico and Arizona, have added to the record a series of observations which could not be before obtained. The scanty numbers of the Signal-Service will not permit it to occupy lines greater in extent than those already contemplated by existing legislation, without additional details. Its little force, already spread over the great territorial extent of the United States, is everywhere worked to its full capacity.

The circuit telegraphic service of this Office has been during the past year essentially the same in style as for the preceding year. The system of working forms of circuits adopted by the Office has been sufficiently described in preceding reports. The regular reports have been received during the year over the lines of the Western Union, Northwestern, and International Ocean Telegraph Companies, in accordance with the usual plans adopted by the Office for the collection and distribution of reports. A considerable number of messages and reports from centers of distribution, &c., have passed over the lines of the Atlantic and Pacific and Franklin Telegraph Companies. Seven hundred and ninety-one thousand two hundred and twenty-seven cipher-words of weather reports have been received at, and seventy thousand nine hundred and eighty-four words sent from, this Office during the year. Four thousand four hundred and seven telegraphic messages, other than weather reports, but connected with that work, were received, and

seven thousand and eighty-five sent, during the same period. There have also been received at this Office eight thousand six hundred and ten cipher-words of special river reports.

The telegraphic business of the Office has been conducted with little difficulty during the year. In December, 1873, the Hon. Reverdy Johnson was commissioned by the Attorney-General as special assistant to the Attorney-General in matters in controversy between the United States and various telegraph companies. The grave questions which had arisen as to the rights of the United States and the duties of the companies in reference to the telegraph service of the United States, submitted for his consideration, have elicited opinions heretofore published, and have led to action, the benefits of which have been felt by the Office. The service has been further and specially benefited by the act of Congress approved June 23, 1874, entitled "An act to protect lines of telegraph constructed or used by the United States, from malicious injury or obstruction." The uses of this act have been prominently exhibited by the protection it has given to the works of telegraphic construction on the Texan frontier and in the interior.

The Chief Signal-Officer has referred in preceding reports to the rapidity of the telegraphic work of this Office, and which the organization of the Office makes possible. This rapidity has been maintained during the year past. In the average time of one hour and sixteen minutes, from the moment at which its observers at stations throughout the great territory the service covers, are required to read simultaneously the different instruments at the different stations, the whole of these readings, covering thus an area almost continental, have been recorded, written, and telegraphed in cipher, and received and registered in this Office. The average time elapsing from the time at which the readings at the stations have been taken at the stations, to that at which the summary reports based upon these data have been issued from the Office, has been one hour and fifty minutes.

Assistant Cleveland Abbe furnishes a continuation of a paper on the auroral display of April 7, 1874—the subject of a preliminary report by this officer which accompanied the last annual report—and also a paper upon seismic observations. (Papers 32 and 33.)

Prof. I. A. Lapham contributes as in previous years a list of disasters upon the lakes. This paper was completed but a few days before his death, and was probably his last official labor. (Paper 34.)

The death of Professor Lapham calls for more than a passing mention. As one of the early practical meteorologists of the United States, his services in connection with this Office in the first days of its present work of storm-warning contributed to its first successes. In later years, and up to the time of his death, they did not cease to be of value.

The tornadoes which, on March 20, 1875, passed over Georgia and the adjoining States were of unusual violence, had courses unusually long, and presented other features of peculiar interest. Sergeant Henry Calver, Signal-Service, U. S. A., was ordered, on March 30, 1875, to the section of country over which they had passed, with instructions to collect such data as would serve for the preparation of a history of their origin, progress, and effects. His report is herewith. (Paper 35.)

A list of such boards of trade, chambers of commerce, and other organizations, apart from those directly connected with agriculture, as have appointed permanent committees to confer with this Office, is given in Paper 11. Paper 9 contain the names of places from which requests have been received for the establishment at them of signal-service stations, but at which stations had not been established on the date

of June 30, 1875. Paper 10 exhibits the names of such agricultural societies which, on June 30, 1875, had appointed permanent committees to confer with the Chief Signal-Officer of the Army. Paper 13 exhibits the names of the military posts from which meterological registers are received at this Office.

The Chief Signal-Officer has earnestly represented in preceding reports the need of some permanent organization for the Signal-Service. The acts of Congress, approved June 16, 1874, and March 3, 1875, fixing the permanency of the service, and providing for the non-commissioned officers and the other enlisted men, have been productive of the best results. Provision was not, however, made by these acts for that proper pay the enlisted men of the service ought to receive. It would be difficult to find a body of men finer as a class or more faithful to their duty than those carried on the rolls of the corps. Admitted to the service after passing a thorough examination, and well instructed before they are permitted to assume the charge of stations, it is right such men should have every encouragement. On any non-commissioned officer of the service rests the immediate care of the station at which he may be, separated sometimes many hundred miles from this Office. Present there, he represents the United States in his duties, with boards of trade, commercial associations, the press, and the large populations the station duties reach. Upon his faithfulness, honesty, sobriety, and good conduct depend the success and reputation of the service. They could not be retained in the service if their scanty remuneration were not eked out by a system of allowances. It was recommended last year, as necessary to retain men of this class, and the recommendation is renewed, that the pay of these men be made equal to that of the most favored enlisted men of the Army.

It seems simple justice that their pay should be at the rates corresponding to those formerly had in the signal corps of the Army. The pay proper of sergeants computed in this manner would be thirty-four dollars per month; that of corporals would be twenty-one dollars; that of first and second-class privates, eighteen dollars and thirteen dollars, respectively.

In the last annual report of the Chief Signal-Officer, a form of organization was recommended for the officers of the service, which was considered in the Military Committee, and was, by their authorization, brought to the notice of the House of Representatives of the United States. The experience of the past year has strengthened the Chief Signal-Officer in the view that the plan of organization then recommended is, with perhaps some slight modification, best suited to provide for the service in its present condition. Without some organization it is exposed to constant embarrassment. It is sometimes impossible to secure either the detail of officers especially desired or to retain those who have proven themselves valuable and suited for its duties.

Often in the case of officers to whom have fallen years of study and practice, in each of which they have improved by experience, and each of which has rendered their skill not only more valuable to this service, but to the great interests which now, throughout the United States, in some degree, depend upon it, a notice of relief comes at the moment the action of Congress or the orders of the Department have burdened the corps with additional duties. Often after months of labor in the cases of newly detailed officers, and after the time of others has been taken to fit them well for the special duty, their interests or the duties of their companies call them away at the moment they have become fitted to take their share in the real labor. The work of the Office is embarrassed as details change. It might be wholly broken up without intention

even by a single misconceived order or one drawn in ignorance of the facts. The industries now benefited by this service, the sums which have been expended to secure its success, and the standing it has attained, are such that it ought not to be longer left without the protection of legislative enactment. To fulfill its demands reliably the employment of a selected officer once placed upon this duty and fitted for it ought to be permanent. Provision should be made for such permanent employment of its officers and for their reasonable promotion, for the same reason that it is made in the cases of the officers in every other special service.

The different acts of Congress, which have become statutes with the succeeding years, have seemed to indicate an approval of the work of the Office, and satisfaction with the results of its labors. They have provided all necessary powers to aid it in the prompt discharge of its duties. To an office charged with such service that its best success depends upon a rapidity of action which may save minutes of time, protection from unnecessary delays cannot be too carefully assured. Lightning and the telegraph give little time for prolonged formalities. If a line is down, there must be the power to repair it immediately. Warnings to keep in advance of a storm must not be cumbered with slow processes. The prevision of the Secretary of War has hitherto guarded the service from many dangers. It is hoped that the plans under which it has been so long conducted, and with good results, will not change.

The Chief Signal-Officer finds, as he reviews the results of the year, causes for encouragement. The question of the useful pre-announcement of approaching meteoric changes may be considered as determined by now five years of successful service. With each year of labor the paths for improvement open more plainly. What was conjecture becomes certainty. The co-operation of scientists is assured, both at home and abroad. The uses of the work accomplished, the results to be hoped from in the future, have been well appreciated. The popular support and the support of the press have not failed. Legislation has been favorable. The opportunities for rendering a public good have opened wide to the service. The effort must be to use them wisely.

ALBERT J. MYER,
Brig. Gen., (Bvt. Assgd.,) Chief Signal-Officer, U. S. A.

Hon. WILLIAM W. BELKNAP,
Secretary of War.

REPORT OF THE BOARD OF VISITORS OF THE UNITED STATES MILITARY ACADEMY.

OFFICE OF THE VICE-ADMIRAL,
Navy-Yard, New York, July 23, 1875.

SIR: I have the honor to forward to the Department, by to-day's mail, the report of the Board of Visitors for West Point in June, 1875.

The members of the board desired me to sign the report for them; and those of the Senate and the House expressed a desire to join in the report, and also authorized me to sign for them.

I hope the arrangement will be satisfactory to the Department.

Very respectfully, your obedient servant,

S. C. ROWAN,
Vice-Admiral U. S. N.

Hon. W. W. BELKNAP,
Secretary of War, War Department, Washington, D. C.

SIR: The Board of Visitors appointed to attend the annual examination of the United States Military Academy, met at West Point, May 31, 1875, and were organized by the appointment of a chairman, a secretary, and three committees, on instruction, on discipline, and on fiscal affairs.

All the members of the board, including those appointed from the United States Senate and United States House of Representatives, with a single exception, were present most of the time from the commencement of the examination until its close, and participated in the various inquiries which were instituted by the board. In accordance with the law of Congress these inquiries related to "the discipline, instruction, police, administration, fiscal affairs, and other concerns of the institution."

In pursuing their examinations the board were aided efficiently by the superintendent, General Ruger, and all who are associated with him in the administration and instruction of the academy.

Every department of the institution was thrown open to inspection at any time. The books and accounts were freely accessible. In response to written inquiries, detailed statements were submitted to the board. All the officers showed great readiness in furnishing the information which was sought, and there were opportunities for free and informal conversation with the cadets.

The board took advantage of these means of acquiring knowledge, and were satisfied that the publicity with which every official act is performed and recorded protects the nation against the creeping in of serious abuses. More than this, the board were satisfied that in all departments of the academy, accuracy, thoroughness, fidelity, and obedience to law are controlling principles, both in administration and in education.

In presenting a summary of their observations and reflections, the board are conscious that the time allotted has not been sufficient for them to pronounce a definite opinion on many of the subjects to which their attention has been directed.

The academy, as now organized, is the growth of more than seventy years. It evinces the wisdom of those who have made the laws, and of those who have admintstered them in Washington; it bears the impress of experienced teachers who have devoted their lives to the education of youth; it shows the influence of many able and successful superintendents; its efficiency has been proved in peace and war by the character of those who have here been trained; its results have called forth the pride and gratitude of the nation.

In such an institution as this a conservative policy is indispensable. Ill-advised experiments are out of place, and changes of a serious character should not be made without deliberation and consultation. At the same time it should be borne in mind that great advances have been made during the last few years in scientific education. New institutions, with able teachers, generous endowments, admirable laboratories, costly instruments of experiment and observation, and extensive collections in the various branches of natural history have been established in different parts of the country.

The United States Military Academy should not be behind the best, in any respect. Whatever the experience of the world has shown to be of value in such an institution should be promptly adopted. The officers and teachers should have ample opportunity to maintain relations of friendly intercourse with the officers and teachers of kindred establishments; and the Government should provide the pecuniary means

which will enable the academy, in all the progressive branches of science, to go forward as efficiently as any institution in the land.

Governed by these considerations, the Board of Visitors, notwithstanding the limited time at their command, present with freedom the suggestions upon which they have agreed, together with the principal facts to which their attention was called.

EXAMINATIONS.

The examination which was in progress during the session of the board included the work of the last five months, from January to May.

Each of the four classes was brought in sections before the Academic Board, and was thoroughly questioned upon the topics studied. The black-board was freely used in all these examinations.

The first class, about to graduate, was examined in—

1. *Military engineering* and *the science of war.*
2. *Mineralogy* and *geology.*
3. *Law.*
4. *Ordnance* and *gunnery.*

The examinations appointed for the second class were:

1. *Natural philosophy.*
2. *Chemistry.*
3. *Tactics.*

For the third class:

1. *Mathematics.*
2. *Spanish.*
3. *French.*
4. *Drawing.*

For the fourth class:

1. *Mathematics.*
2. *French.*

These examinations partook somewhat of the character of an exhibition. The scholars were questioned in a large room, to which they were unaccustomed; and in the presence not only of the Secretary of War, of the Academic Board, and of the Board of Visitors, but of many other persons.

Such an exercise undoubtedly gives the scholar the advantage of testing his powers to recall and state his acquisitions under adverse circumstances, and in this respect is an excellent discipline.

It likewise affords a convenient opportunity for showing to all those who have any official responsibility the mode of instruction pursued in the different departments, and the relative, if not the actual, proficiency of the scholars; but there are many obvious disadvantages in the plan.

Mathematics.—The board were favorably impressed by the scholarship displayed in these examinations. The department of pure mathematics maintains its well-known pre-eminence, and the departments of applied mathematics, including philosophy and engineering, are likewise very good.

Engineering.—The board are of the opinion that the subject of "military engineering and the science of war" is of so much importance as to require the undivided attention of a professor, who should have the time and the opportunity to keep acquainted with the progress of his department in this and in other countries.

They are also of opinion, in view of the large number of persons who are trained at West Point for civil life, or who are likely to be engaged

in the service of the Government as civil engineers, that greater prominence, in the course of instruction, should be given to civil engineering.

It should be remembered that Army engineers are employed upon the survey of the lakes, the improvement of interior rivers, and the construction of public works in different parts of the country. The board accordingly recommend that the professorship of engineering be divided, and that "civil engineering" be given to one chair, and "military science and the art of war" to another.

The day has already come when better rooms are requisite for the department of natural philosophy and chemistry, and the board commend to the authorities the preparation of plans for such a structure or structures as will meet the requirements of these important sciences.

Geology, &c.—It seems to the board also that, in consideration of the number of Army officers who are sent to the frontier and to regions comparatively unexplored, more attention should be given to the science of geology, mineralogy, and natural history.

It is quite doubtful whether more time can be allowed to these studies in the appointed curriculum, but the generous and skillful building up of collections in natural history and geology would awaken in many of the cadets an interest in these studies, and would enable many of the officers connected with the academy to prosecute their studies in this direction.

Drawing.—It seems to the board desirable that more attention should be paid to the various departments of what is sometimes called instrumental drawing, including topographical, architectural, and mechanical drawing. Elementary free-hand drawing is likewise important, but it seems to the board that the time given to landscapes, and to oil and water colors, should be diminished if not devoted entirely to other subjects.

Law.—The board call attention to the fact that within the past year the chaplain has been relieved of his duties as an instructor in law, and a judge-advocate of the Army has been detailed to serve at West Point as professor of law. The examination in this study was creditable alike to the teacher and the class. The instructions have not been restricted to a text-book, but have been carried on by means of informal lectures and exercises, in which recent and interesting decisions on questions pertaining to the action of the Army and to international law were brought forward for consideration.

The board are of opinion that the instructions of this chair are of the highest importance, and that the professorship should be permanent.

English.—The board recommended that the study of English be pursued, at intervals, through the entire course, upon a plan similar to that now adopted in several of the best colleges of the country; and accordingly they recommend that a professor of English be appointed to give instruction in the history, structure, and use of the English language and in its literature. Such a teacher would doubtless devise a series of disciplinary exercises in writing and in the training of the voice. Every cadet should certainly have sufficient practice with his pen to make him exact and ready in the preparation of reports, orders, and official statements.

Many of those who graduate at the academy are indeed accomplished in this respect, but no provision is made in the academy for the instruction of those whose literary cultivation has been neglected.

The course of study now provides in the very slightest degree for the study of history and literature; and it seems to the board that some instruction in these departments would not in fact interfere with the effi-

ciency of the instruction in the mathematical and scientific branches, and would materially aid the acquisition of French and Spanish.

The board noticed a want of clear and distinct vocal utterance in those who were under examination, which might readily have been prevented if there had been an instructor in elocution, and the classes had been properly trained in the use of the vocal organs.

In recommending that more attention should be given to English, the visitors for the current year are confirmed by the recommendations of those who have been here in the like capacity on several former occasions.

STANDARD OF ADMISSION.

The Board of Vistors have given much consideration to the standard of admission and the results of the entrance-examinations, but are not agreed upon recommending any decided changes.

They would respectfully advise that the Secretary of War request each Representative in Congress, as a vacancy in the academy is reported to him, to nominate both a candidate and an alternate, so that if one is rejected the other may at once present himself for examination; and they would advise that both the candidate and the alternate be notified of their selection a year in advance of the examination, so that they may have full time for preparation.

The board would also recommend that the requirements for admission should be increased so as to include the entire amount of arithmetic commonly taught in the common schools, and algebra as far as quadratic equations. This degree of mathematical proficiency seems to the board to be quite within the reach of all candidates.

It is a very suggestive fact that in the last five years the average number of rejected candidates has been 6 per cent. for physical deficiency and 40 per cent. for deficiency in the scholastic requirements.

In the six New England States, where educational facilities are open to all, the rejections have been 35 per cent. of the number examined from that section.

From these statistics, it is clearly evident that in the schools of the country there is need of more thorough methods of instruction in the elementary branches.

At the request of a member of the board, Professor Church, who is one of the most experienced teachers of the country, made the following memorandum:

UNITED STATES MILITARY ACADEMY
June 12, 1875.

Referring to our conversation this morning, I have to say that, from my experience in the examination of candidates for admission to the Military Academy, I am satisfied that there is somewhere a serious defect in the system of instruction, or in its application, in the schools of our country for education in the elementary branches, particularly in arithmetic, reading, and spelling. I think our candidates are not as thoroughly prepared as they were twenty years ago.

Very respectfully, yours,

A. E. CHURCH, *Inspector.*

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FRENCH AND SPANISH.

The board are of the opinion that the professorships of French and Spanish might be united and made a professorship of modern languages, with such instructorships attached to it as may be considered requisite.

APPARATUS.

The most liberal policy is recommended with respect to appropriations for the purchase of scientific instruments and apparatus. The Military Academy should be in advance of all the institutions of the country, in its means of research and instruction in physics, chemistry, and the various branches of engineering.

Recent outlays have been made for the purchase of mathematical models and for philosophical apparatus, and the usefulness of these purchases is very obvious.

A liberal appropriation is needed for the departments of civil and military engineering. Without naming any definite sum for such appropriations or attempting to indicate what is most necessary, the board are of the decided opinion that in this national school of science the most approved method of scientific research should be illustrated.

It is recommended that appropriations for the purchase of models and instruments be made *indefinite*, and not limited to the duration of a single fiscal year, as it is difficult to determine in advance their cost and the actual time that will be required to construct them.

VITAL STATISTICS AND HYGIENE.

The attention of the board was called to a schedule of physical and vital records which the surgeon has recently instituted. The value of these records, maintained for a series of years, will be very great, and the surgeon is entitled to commendation for the thoroughness and comprehensiveness of his plans.

It has occurred to some members of the board that a course of lectures on hygiene and sanitary science might be given by the surgeon, with reference to acquainting the cadets with the laws of personal health and with the responsibility which will rest upon them for the care of companies of men in camp, on the march, and in the hospital. It is suggested that during the summer, while the cadets are in camp, such instruction might be given.

DISCIPLINE AND GENERAL POLICE.

The discipline of the cadets is fully maintained at the high standard essential to the institution, and which has been its characteristic feature for many years.

The position of the cadet, as defined in the practice of the academy, rather than by any positive law or regulation, is somewhat anomalous.

For certain purposes he is an "enlisted man," and occasion is thus given to such officers as choose to do it to treat him in all social respects as a common soldier.

This is undoubtedly a narrow and defective view.

The cadet is a prospective officer, and his education is wholly intended to fit him for the duties of an officer, and it is neither just to him nor profitable to the service to limit him during his training to the social position enforced by military etiquette upon the common soldier.

As a future officer, he is entitled to those influences which tend to make him a gentleman, and not least among these is the influence of cultivated and refined society.

The board are of opinion that these influences can be extended to a very considerable degree without any prejudice to the most rigid discipline.

The existing routine offers no premium for general good conduct, and

might be so extended as to make the privilege of association with the officers and their families at the post a reward for honorable conduct and an evidence of trustworthiness.

Such privilege would necessarily be conditioned upon good conduct, and its withdrawal should follow upon failure of the cadet to preserve the reputation upon which it is dependent.

The board are informed that such intercourse as is above suggested prevails in one, at least, of the military schools of Europe, and that in a country celebrated for the severity of its discipline, and that the results have been admirable.

It would seem that by such means a closer and more affectionate interest would be developed between instructor and pupil, between the present and future officer, and some portion of the wholesome home influences of which they are necessarily deprived might be supplied by such more intimate intercourse.

POLICE.

The general police of the public buildings and grounds is accurate and admirable.

From the topography of the place, an excellent surface-drainage for all the public grounds can be maintained, and the grading has been so far perfected that no accumulation of water can occur.

The internal police of the cadet-barracks and other buildings is neat and precise.

The only defect in practical neatness observed by the board is in the kitchens and scullery of the cadet mess-hall. The space allotted is too small, and the utmost vigilance is needed to prevent the ill odors which necessarily arise from the least neglect of absolute cleanliness; and from the construction of the building these ill odors must penetrate into the mess-hall.

This defect and some others, which will be noted under their proper heads, are the results in great part of neglect and incompetency on the part of the purveyor, who is directly charged with control and supervision of this portion of the public buildings, and are also evidence of the want of a sufficiently thorough inspection in this department.

DIET.

All of the expenses of the mess-hall and of provisions, supplies, and cooking, including salary of purveyor, labors upon the garden, wages of cooks, scullions, attendants, and waiters, are paid by assessments upon the cadets, varying somewhat from month to month, but averaging from nineteen to twenty dollars per month.

All purchases are made by the purveyor, who is a civilian named by the superintendent, and his accounts are examined and audited every two months.

The diet is sufficient in amount and in variety, but the quality of some of the articles purchased is far from satisfactory.

In the judgment of the board, a close and rigid system of inspection, by officers of experience, of all purchases and supplies should be enforced.

The meats for the cadets are supplied by contract, made by the purveyor, at the uniform rate of 17 cents per pound for all kinds, and should never be accepted or used for cooking without adequate inspection. All other articles of a perishable nature, and which deteriorate rapidly, should be treated in the same manner.

Articles not perishable should be purchased at first-hand whenever practicable, and of the best quality, which quality should be determined by inspection.

The sum of twenty dollars per month from each cadet should secure an abundance of food of the best quality, and in sufficient variety for all reasonable wants, and also fully cover all expenses of skillful preparation and of service and attendance, provided the duty of the purveyor is conscientiously performed by an active, energetic, and competent man, and checked and verified by thorough and uniform inspection. This rate is decidedly higher, so far as the board can learn, than at any similar institution in the country; and it is only because of the isolation and exceptional situation of West Point that the board admit so high a charge for this item of expenditure.

Under the present purveyor the board are of opinion that the cadet does not receive what he is entitled to for the amount charged him.

It is a question for consideration by the proper authorities whether the system is not defective, and whether it would not be decidedly better to place the battalion of cadets on a different footing, by assigning to officers detailed from the proper staff corps of the Army the duty now performed by civilians at the expense of the cadets.

It is admitted that the service and attendance on the cadets' mess-table is insufficient. One waiter to forty-four cadets is a force inadequate to place the food upon the table with sufficient promptness and rapidity to secure that it shall be in a healthful and eatable condition.

Without seeking in any respect to introduce habits approaching luxury in the cadets, the board are of opinion that a sufficient force of waiters should be employed to serve the food from the kitchen to the tables rapidly and without loss of heat, especially in the severe weather of the winter; and that the substitution of a staff-officer for the purveyor would secure the necessary funds for this and other desirable improvements.

SANITARY CONDITION.

The cadet hospital is in as good order and condition as is practicable in the present building. This edifice is contracted in space, badly constructed, ill-ventilated, and unfortunately situated.

The administration is entirely satisfactory.

The new hospital building now in construction will be free from all objections, and its rapid completion is urgently demanded, and the board recommend that it be pushed with all possible dispatch.

SEWERAGE.

Until within a few years, no general system of sewerage had been undertaken, and at present it is limited to the buildings on the line of the barracks and south of that line.

The present main sewer discharges into the river by an open conduit running near the line of the road to the ferry-landing. This should be covered and continued below the line of low water in the river at the point of its discharge.

Plans for the extension of the system to include the rest of the buildings and officers' quarters have been prepared, and a partial appropriation made at the last session of Congress. In a matter of such vital importance to the health of the academy, the board recommend that the work be pushed as rapidly as possible, and appropriations made to the full amount that can be wisely used in each year until the whole system shall be complete.

WATER-SUPPLY.

The present supply of water is derived from springs in the hills, collected in reservoirs, and distributed by pipes.

The water being derived from hills of gneiss and granite, is of good quality; but, in the judgment of the board, the quantity is insufficient for all the uses to which it might be applied. The building of one or more additional reservoirs, the protection of all the reservoirs by sufficient fences against fouling by decaying matter drifted by the wind, and the erection of a filtering-basin appear to the board to be required.

The supply should be sufficient, at all seasons and under all circumstances, for all purposes, including the suppression of fire.

SWIMMING-SCHOOL.

Both in a sanitary point of view and as an essential part of military education, the board recommend the establishment of a swimming-school and the erection of the proper buildings for that purpose.

The Hudson River at West Point is a dangerous stream for beginners, full of eddies and counter-currents caused by the boldness of its banks and the manner in which the point projects into the stream. The immense travel on its waters renders public bathing in the day-time indecent. There can be no privacy in any of the waters fit for swimming in the vicinity of the academy. Hence instruction and exercise in this necessary art must be within some inclosure.

In closing this part of their report the board desire to call attention to the manner in which the commissary-store has heretofore been conducted.

Until very recently it has been the custom for many years to charge the cadets a profit of 10 per cent. upon the cost of all articles purchased for them and supplied to them from the store. Experience has long since demonstrated that this was far too high a percentage.

The charge was originally intended to cover the cost of superintending and clerk-hire, and the expenses of administration of the store; but the accumulated fund has become large enough to pay for the erection of a fire-proof store, at a cost of eighteen thousand ($18,000) dollars, a steam-laundry, and a stock of goods on hand of about fifteen thousand ($15,000) dollars.

The present superintendent has reduced the rate to 4 per cent., which is a much nearer approach to justice.

If the maintenance of this store should properly be charged against the cadets and deducted from their slender pay, its measure should be limited by the lowest possible percentage consistent with economical administration.

The board, however, suggest to the Secretary the propriety of relieving the cadets altogether from these charges, and of assuming them as part of the general administration.

FISCAL AFFAIRS.

A committee of the board, appointed to inquire into the fiscal affairs of the academy, reported that they found the account to be well kept and properly vouched.

MISCELLANEOUS SUGGESTIONS.

The committee recommend an addition to the hotel, so as to furnish adequate accommodations for the Board of Visitors, officers of the Army,

and the parents of cadets. The lack of suitable rooms for the meetings of the board has hitherto impeded the efficient transaction of business.

The board are of the opinion that a proper school-house should be built and furnished for the instruction of the children of officers employed in the academy.

In the opinion of the board, the allowance to the superintendent for contingent expenses is too small, and should be moderately increased.

In conclusion, the board make this public recognition of the constant courtesy which was extended to them during the progress of their inquiries.

To the superintendent, the commandant, and other administrative officers, and to the professors and other teachers, their grateful acknowledgments are tendered.

We have the honor to be, very respectfully, your obedient servants,

S. C. ROWAN,
Chairman of Board.

Hon. W. W. BELKNAP,
Secretary of War, Washington, D. C.

General Jacob Ammen, Maryland; General N. B. Baker, Iowa; William Dowd, New York; H. H. Fay, Rhode Island; Prof. Daniel C. Gilman, California; Prof. J. F. Kellogg, Illinois.

The chairman was authorized by the foregoing members of the board to sign their names to the report; and the following-named Senators and members of the House of Representatives, viz, Hon. W. B. Allison and Hon. M. W. Ransom, United States Senate; Hon. Benjamin F. Butler, Hon. Thomas J. Creamer, and Hon. S. A. Hurlbut, United States House of Representatives, have expressed their concurrence in the views of the board, and have likewise authorized their names to be affixed to the report.

REPORT

OF

THE SECRETARY OF THE NAVY.

NAVY DEPARTMENT,
Washington, D. C., November 29, 1875.

SIR: The following report of the Navy Department and naval service for the present year is respectfully submitted:

VESSELS OF THE NAVY.

The number of vessels of every class and description now borne on the Navy Register is 147. These carry, all told 1,195 guns, and are of 152,492 tons measurement. Of these, 26, carrying nominally 266 guns, are sailing-vessels without steam-power, of which number four, namely, the Santee, the Dale, the Saratoga, and the Portsmouth, are in use as training and practice ships; two, the Saint Marys and the Jamestown, are assigned to States as school-ships, under the act of Congress providing therefor; three, the Pawnee, the Saint Louis, and the Saint Lawrence, in use as hospital-ships or as quarters; six, the Antietam, the Ohio, the Vermont, the Supply, the Onward, and the Guard as coal, store, and supply ships at the various stations and for the several squadrons; six, namely, the Independence, the New Hampshire, the Relief, the Sabine, the Potomac, and the Savannah in commission as receiving-ships; two, the Macedonian, and the Cyane laid up in ordinary as useless for any present purpose, and one, the old New Orleans, remaining, as has been the case for the last half century, on the stocks at Sackett's Harbor. The Constellation is useful as a practice-ship. These ships, though most of them are useful for the purpose to which they are assigned and to some extent a necessary part of the naval service, are in fact mere representatives of the Navy of the past, still remaining on the Register to be utilized as best may be, but of little or no value as part of an efficient force for either the cruising or fighting purposes of the present day.

The steam-vessels of the Navy, as distinguished from iron-clads and torpedo-ships, number in the whole ninety-five, of which, however, twenty-five are tugs, employed as towing, ferry, or torpedo boats at the various navy-yards or stations, or in use as surveying-vessels, or in the service of the Fish-Commission, in accordance with the law directing the same. Twenty-nine of all classes are in ordinary at the yards on the Atlantic or at Mare Island; three, namely, the Gettysburg, the De-

spatch, and the Tallapoosa, are used as freight and dispatch vessels; three more are in commission as training and receiving ships, at all times ready for service, and the remainder are in commission on the several stations or are at the various navy-yards ready for use when required.

Of these wooden ships, 18 are in fact new, the Trenton, Adams, Essex, Enterprise, Alliance, Alert, Huron, and Ranger, being the 8 new sloops built under special appropriation, and 10 others, the Monongahela, Tennessee, Mohican, Swatara, Vandalia, Marion, Quinnebaug, Galena, Nipsic, and Tallapoosa being rebuilt with live oak timber and supplied with substantially new machinery during the two or three years last past. Besides such of these new ships as are in commission, 32 others, including the largest and most efficient ships of the Navy, are in actual service as cruisers or training-ships, and 12 of the remainder, though requiring more or less repairs to their boilers and machinery, could, if needed, be put into condition for service as soon as sailors could be enlisted to man them:

IRON-CLADS.—Our iron-clad fleet consists of 26 vessels, classed as follows: 3, the Massachusetts, Oregon, and Colossus, which are of a class and in condition to be of no service whatever, having been designed during the war as large sea-going iron-clads, but never launched, and though their names still appear on the Navy List, they consist only of their wooden frames, with a single exception, much deteriorated by time, and their unfinished armor and machinery stored in the navy-yards. The remaining 23, consisting of 21 vessels of the monitor type, and 2 iron torpedo-ships, are all efficient vessels of their class, and very powerful in both defensive and offensive operations near our shores. Five of them, namely, the double-turreted monitors Amphitrite, Monadnock, Miantonomah, Puritan, and Terror, are in process of complete repair, requiring from four to six months to finish if pushed, while the remaining 18, consisting of the Roanoke, the 2 torpedo-ships, Alarm and Intrepid, and 15 single-turreted monitors, namely, the Ajax, Canonicus, Camanche, Catskill, Dictator, Jason, Lehigh, Mahopac, Manhattan, Montauk, Nahant, Nantucket, Passaic, Saugus, and Wyandotte, are all in good condition, ready for any service at any time. This makes 80 available ships, including 16 iron-clads and 2 torpedo-boats.

CRUISING STATIONS.

Our cruising stations remain the same as last reported in number and designation, being six separate stations, each commanded by a rear-admiral, and designated respectively the European, the Asiatic, the South Pacific, the North Pacific, the South Atlantic, and the North Atlantic stations. These comprise within their limits the whole field of naval operations in every part of the world.

The European station.—There has been, as yet, no change in the force on this station during the past year, which is composed of the Franklin, flag

ship, Congress, Alaska, and Juniata. Rear-Admiral John L. Worden, who is at present in command, left Norfolk January 14, in the Powhatan, which was assigned to this special duty, and to bring home Rear-Admiral A. L. Case, relieved on his retirement, and others who had served their full term on the station. The Powhatan arrived at Lisbon January 29, and on February 3 following, the transfer of commands took place at that port. February 8 she left Lisbon for home, touched at Madeira, and reached New York March 18. The several vessels of the station which had been assembled at Lisbon proceeded to the Mediterranean, and, separating soon after, visited the principal commercial ports from the straits to the eastern coast.

Leaving the Congress in the Mediterranean, Rear-Admiral Worden proceeded, in May, in the Franklin, taking with him the Alaska and Juniata, to the German coast. The last-named vessel, delayed on account of an accident to her machinery, did not go farther than Hamburg. The Franklin and Alaska entered the Elbe, visited Glückstadt, and proceeded thence to Kiel, Stockholm, and Cronstadt, arriving at the last-mentioned port July 13. They remained until July 20, and returned, via Copenhagen, to Southampton, when the three vessels again met. The reception of the officers and men of these ships, at the several ports mentioned, was of the most gratifying character, and the interchange of civilities was calculated to strengthen the already strong ties of friendship existing between the respective countries. The vessels proceeded southward from Southampton August 30, the Alaska via Havre, and entered Lisbon early in September.

The Congress had in the meantime visited various ports from Gibraltar to Alexandria, but, in consequence of the rigid quarantine maintained in the ports of Syria, contemplated cruises marked out for that coast could not be made.

Since their return to the Mediterranean continued activity has marked the movements of the vessels of the station.

Only one circumstance has arsien within the limits of the command to mar the pleasant and usually existing intercourse. It became necessary in August last to order two vessels to Tripoli to inquire into insults offered to the consul of the United States by sailors of the Tripolitan squadron.

The Hartford, then just out of the canal, (on the way home from the Asiatic station,) was telegraphed to touch at Tripoli, and Rear-Admiral Worden received orders to send one or more vessels of his command, if necessary, to that point for the purpose stated, and he accordingly dispatched the Congress. Both vessels arrived about the same time, the 17th of August, and the senior in command entered upon the duty to which he was assigned. They were not well received by irresponsible parties on shore, who made some rude demonstrations; but the matters were soon satisfactorily settled, suitable atonement being made by the Tripolitan government, and the two vessels took their departure on the

28th of August, after a full restoration of the previously existing friendly relations.

The Asiatic station.—The force on this station, probably the most important of any of our foreign stations, consists of the Tennessee, (flag-ship,) Kearsarge, Yantic, Ashuelot, Monocacy, Saco, and Palos, and is under the command of Rear-Admiral William Reynolds. Rear-Admiral Alex. M. Pennock, whom he succeeded, relinquished the command at Yokohama, June 24, on account of ill-health, and returned home by mail-steamer to San Francisco. Commander R. F. R. Lewis, the senior officer on the station, was left in command until the arrival out of Rear-Admiral Reynolds. The latter sailed in the Tennessee from New York, June 26, and proceeded to his station by way of the Mediterranean and the Suez Canal. The Tennessee touched at Gibraltar and Palermo, passed safely through the canal, thence on to Aden, Bombay, Colombo, and Penang, at which latter place Rear Admiral Reynolds reported his arrival on the 26th of September. He has probably reached Yokohama, the headquarters of the station.

The Hartford, which had been a full term on the station as flag-ship, returned home by the same route—the Suez Canal and the Mediterranean—and arrived at New York, October 19, and was put temporarily out of commission.

The Lackawanna, also, has returned home, having arrived at San Francisco April 27.

The vessels composing the force on this station have performed the usual routine of cruising, although some of them, having been long in commission, have, of necessity, undergone considerable repair. The commercial ports in Japan and China, open to our vessels, have been frequently visited, and the cruising has also been extended to Sumatra, Batavia, Borneo, Manila, Singapore, and other settlements in the straits. Neither our citizens, nor their property or interests, over this vast field of commerce and resort, have been so interfered with as to appeal for naval protection, and the most cordial relations have continued to prevail between our officers and the authorities of all the eastern powers.

The South Pacific station.—The vessels now on this station are the same as at the date of the last annual report: the Richmond, (flag-ship,) Omaha, and Onward; the last named of which is used for a stationary store-ship at Callao.

Rear-Admiral Napoleon Collins, who was in command of the force one year ago, died at Callao on the 10th of August last. Funeral honors of the highest order, due to his prominent rank and long and faithful service, were shown to his memory by the officers of his command, and the officers, authorities, and citizens of other nations, to whom he was known and with whom he had been associated on the station. By his death, Captain Edward Simpson, senior officer on the station, became temporarily the commander of the station, and continued so until the arrival of a successor to Rear-Admiral Collins, Rear-Admiral

Reed Werden, who reached Panama September 25, and hoisted his flag on the Richmond.

During the political disturbances on the Isthmus of Panama, in August and September, on account of which some apprehension was felt lest lawless parties might interrupt the transit over the railroad, molest our citizens, or injure their property, two cruisers of this station were ordered to remain in the bay of Panama, prepared to render assistance, so long as their presence should be necessary. Quiet was restored without any interference on the part of our force, and Rear-Admiral Werden sailed from Panama, in the Richmond, October 25, for the southern part of the station, leaving the Omaha still in port.

The small number of cruisers available for service on this station, rendering it inexpedient for either of the two vessels now there to extend their movements to the islands of the South Pacific and to Australia, they are necessarily confined to the west coast of South America, from Panama to the ports of Chili.

The North Pacific station.—The force on this station is commanded by Rear-Admiral John J. Almy, and consists at present of the flag-ship Pensacola and the Tuscarora. The Benicia, Portsmouth, and Narragansett have been put out of commission during the past year, the last mentioned having completed, during the year, a series of useful surveys in the route of the steamers along the California and Mexican coasts.

The Saranac, one of the most useful vessels on the station, was lost in Seymour Narrows, on the 18th of June last, while on the passage to Sitka, the fur-seal islands, and Behring Straits. In connection with the unfortunate loss of this vessel, it is a pleasure to recur to the courteous and valuable service of the officers of Her Britannic Majesty's government on that station. In passing through the narrows, the Saranac was caught in a whirlpool, thrown violently on a sunken rock, and so badly injured as to sink in deep water soon after reaching the neighboring shore. Her officers and crew were safely landed, but a scanty supply of provisions and clothing only was saved. A cutter was sent to Victoria for assistance, but in the meantime, information of the disaster having incidentally reached Rear-Admiral A. A. Cochran, C. B., the commander of Her Britannic Majesty's naval force on that station, he, with great promptness and forethought, dispatched one of his squadron, the Myrmidon, Commander Richard Hare, under a full head of steam, to the assistance of the officers and crew of the Saranac. The Myrmidon reached Seymour Narrows in advance of the steamer which had been engaged at Victoria. Every possible assistance was extended to the shipwrecked people, and their wants, such as provisions, blankets, clothing, &c., immediately supplied. Part of them were transferred to the Myrmidon, and the others to the Hudson Bay Company's steamer Otter, and conveyed to Victoria. Rear-Admiral Cochran himself, in the evening of the same day on which he sent the Myrmidon, left Victoria in his flag-ship, the Repulse, for Sey-

mour Narrows, fully provided with divers, lighters, and other appliances for either raising the Saranac or recovering her guns and other articles. The impossibility, in the opinion of the officers of the Saranac, who were met on the way, of rendering any service of this nature, alone prevented Rear-Admiral Cochran from making an effort to carry out the purpose so generously conceived. His excellency James W. Teatch, lieutenant-governor of the province, and Mr. J. H. Innis, Her Britannic Majesty's store-keeper at Victoria, as did the officers of Her Britannic Majesty's two vessels named, extended cheerful aid to the officers and crew of the Saranac while waiting transportation to San Francisco. The Department duly acknowledged and expressed its appreciation of these kind acts of Her Britannic Majesty's officers, but desires to thus publicly recognize the same.

The Benicia having been placed at the disposal of His Majesty the King of the Hawaiian Islands, who desired to visit the United States, received him and his suite on board, at Honolulu, in November, 1874, with appropriate honors, and safely landed them at San Francisco about the 1st of December. On the conclusion of his visit, His Majesty was offered a passage back to his dominions in the Pensacola, the flag-ship of the station. He embarked at San Francisco February 2, and disembarked at Honolulu on the 15th of the same month. Such means as were at the command of the Navy Department were not spared to provide for the comfort of His Majesty and suite, both on shipboard and during their stay in the country; and the relations between them and the officers of our naval service were of a most agreeable and gratifying nature. He subsequently availed himself of a passage in the Pensacola, which contemplated a cruise among the islands of the Hawaiian group, to visit some of the more important ports of his dominions.

The Tuscarora, which has been engaged in deep-sea soundings, while performing other legitimate duties, after completing a line from San Francisco to Honolulu, left the latter port on the 4th of March for the Samoan group, for the purpose of conducting, at the instance of the Department of State, an inquiry into the claims, or complaints, of American citizens against the natives of that group. This duty was performed in a highly satisfactory and prudent manner, and the course of her commanding officer and those associated with him was such as to inspire a feeling of friendship and good-will between the rulers of Samoa and the citizens of the United States. Mr. Steinberger, special United States commissioner, availed himself of a passage on the Tuscarora to Samoa on this occasion. Returning from this service, the Tuscarora refitted and sailed again from San Francisco, on the 31st October, for Honolulu, and will run a line of deep-sea soundings from that point to Australia. This is an important cruise, and she will be absent some months.

The Saranac, in the early part of the year, returned from a visit to La Paz and other places in the Gulf of California, whither she was sent

in consequence of disturbances affecting the lives, property, and interests of American citizens. All proper steps, under the circumstances, were taken by her commanding officer, looking to the protection and encouragement of our people engaged in mining and other lawful pursuits in that quarter. Her loss, as hereinbefore stated, interrupted a cruise which promised to be both useful and interesting, commercially and scientifically.

Rear-Admiral Almy has given much of his time to the Hawaiian group, probably the most important and interesting quarter of his command. He sailed from there on the 25th of September last for Lower California and the west coast of Mexico, and is looked for at San Francisco about February.

The South Atlantic Station.—The force on this station is commanded by Rear-Admiral William E. Le Roy, and consists of the Brooklyn, (flag-ship,) Monongahela, Wasp, and Frolic. The Brooklyn joined the station May 20, taking the place of the Lancaster, and the Frolic has probably reached it. The latter is to succeed the Wasp, which is about worn out, and not being in a condition to make the passage home, has been ordered to be sold out there.

The Lancaster, with the exception of the few months when she was recalled for service on the North Atlantic station, had been on the coast of Brazil since 1869, in constant use, and having been ordered home sailed from Rio de Janeiro April 22, with every prospect of a fair and happy voyage—the Monongahela taking her place temporarily as flag-ship until the arrival out of the Brooklyn. A few days after her departure from Rio de Janeiro yellow fever of a violent and fatal type appeared on board, and the ship was not freed of its presence until the senior medical officer, the assistant surgeon, and one of the lieutenants, all officers of high character and promise, had fallen victims to it. In this emergency, with but one other medical officer left upon whom to rely for professional aid, a long distance from home and upward of four hundred souls on board, the commanding officer of the Lancaster very wisely concluded to run into the Brazilian port of Bahia, some four hundred miles to the westward. On her arrival, Baron Ivanheimer, commodore commanding the Brazilian squadron, was in port, and immediately on learning of the serious loss sustained by the Lancaster came forward with every offer of assistance. The hospital was opened, and he also tendered the services of one of the surgeons of his flag-ship, Dr. E. A. F. Da Rocha, to accompany the Lancaster home. The services were gratefully accepted, and the Lancaster, after obtaining necessary supplies, pursued her voyage. Fortunately no other cases of fever appeared, and the ship reached Norfolk June 25, and was ordered to Portsmouth, N. H., and put out of commission. The self-sacrificing spirit of Dr. Da Rocha in accepting a duty, which, in the event of a re-appearance of the fever, promised to be both arduous and dangerous, was not less worthy of admiration than the generous act of Baron Ivan-

heimer in tendering the services of a competent surgeon of his own command to accompany the Lancaster to the United States. Dr. Da Rocha was attentively cared for during his necessary detention in this country and provided with a passage back to his own.

The Monongahela, which was sent to Kerguelen Island to receive the transit-of-Venus observers stationed there, was successful in her mission, and returned to Rio de Janeiro April 19, after four months' absence.

Advices have been received from Rear-Admiral Le Roy, under date of October 13, at which time he was at Montevideo. He contemplated a visit to the southwest coast of Africa, leaving early in December.

Careful sanitary measures have been necessary on this station during the past year to keep the vessels clear of fever. Some other deaths from this cause, than those herein mentioned, have occurred, but great improvement has recently been reported in the health of the station.

The North Atlantic station.—This station is commanded by Rear-Admiral J. R. M. Mullany. Of the vessels which composed the force on this station one year ago, the Canandaigua, Kansas, and Wachusett have been withdrawn and put out of commission; the Brooklyn has been transferred to the South Atlantic station, and the Colorado sent to New York as a receiving-ship. The Plymouth, the Hartford, the Swatara, the Alert, the Huron, the Powhatan, the Rio Bravo, and the Despatch have been added to it in the meantime, so that it now consists of the Hartford, Worcester, Powhatan, Plymouth, Swatara, Ossipee, Alert, Huron, Shawmut, Rio Bravo, Despatch, Dictator, Canonicus, tug Pinta, and store-ship Pawnee.

Early in the year the vessels were stationed chiefly at New Orleans and Key West, but were soon after distributed to other parts of the command. The Canandaigua was ordered to Aspinwall, and thence to the Atrato and Napipi, in connection with the examination of the isthmus, which was made by Lieutenant Frederick Collins and party. On the completion of this duty she returned to New Orleans; thence to Port Royal and Norfolk, at which latter port she was laid up.

Rear-Admiral, Mullany, himself left New Orleans March 22, in the Worcester, and meeting the Colorado at Havana, transferred his flag to the latter vessel, which continued as the flag-ship until her departure from Port Royal, May 13, for Hampton Roads and New York, when he retransferred his flag to the Worcester. As early as April it was found that the appearance of yellow fever at Key West rendered it unsafe to keep the vessels at that place; accordingly the Plymouth, Ossipee, and Shawmut, on the 6th of April, were dispatched in various directions, and the Colorado, Worcester, Dictator, Pawnee, and Pinta were ordered to Port Royal, where the three last mentioned have since remained.

The Ossipee visited Vera Cruz, Tampico, Galveston, and returned to Port Royal. Subsequently she visited Aspinwall, where she remained some weeks, and returned to Port Royal again in July, was then ordered to Norfolk for slight repairs and to give her crew liberty, and

on the 27th of October sailed on a cruise through the Windward Islands, from which she has since returned to Port Royal. The Plymouth visited Matanzas, Cape Haytien, Samana, San Juan, (Porto Rico,) Saint Thomas, and Santa Cruz; returned to Port Royal; was then dispatched to the Rio Grande, where her launches and boats were engaged on picket-duty; returned, via Port Royal, to Norfolk, where she now is. The Shawmut made some examinations near Walling's Island, and afterward made a cruise to Port au Prince, Jamaica, Honduras, Bay Islands, and Havana, and on the 16th of August sailed from Norfolk for Aspinwall, at which latter port she was when last heard from.

In consequence of political troubles in Panama, Rear-Admiral Mullany was in August ordered to proceed to Aspinwall in the Worcester, for the purpose of protecting our citizens and keeping open the transit on the isthmus, should either be endangered. He arrived there August 14. The vessels of the South Pacific station, the Richmond and Omaha, at Panama, were temporarily placed subject to his orders, so far as they were needed, for the protection of the transit and our citizens. No occasion arose for the use of the means at his command; every indication was shown of a desire on the part of those in authority to observe treaty-stipulations and to respect the rights guaranteed our citizens; and, with the assurance that these should continue to be observed, he departed from Aspinwall October 24, touched at Kingston, Havana, and Key West, and arrived in Hampton Roads November 12.

The vessels of the station have cruised with diligence, and it has been necessary that they should come to Norfolk to give their crews liberty, which some had not had for many months.

This station comprises within its limits all the West Indian and adjacent islands, the waters of the Caribbean Sea and the Gulf of Mexico, and those that wash the shores of the great isthmus, Central America, and the Spanish main. Here it is that most of our home and coasting trade touches foreign waters and comes in contact with foreign authority. Here are centered the most delicate interests of our commerce, and here arise the most difficult responsibilities which rest upon us in our relations to other governments. The fleet which occupies this station is sometimes called the home squadron. It now consists, for general purposes, of the ships above mentioned, but all our iron-clads, except two which are attached to the Pacific fleet, really belong to it when in commission. All our vessels on detached service in the Atlantic can also be readily attached to this fleet, as well as our reserved force of receiving and training ships, kept in condition for service at the various Atlantic stations. It could also be rapidly re-inforced at any time by all the ships in ordinary at the several Atlantic navy-yards which are fit for service. The ships of the European and South Atlantic stations are also within call, and could reach our shores in less than a month, should their presence be needed. By utilizing all these means, we should be able, if required, to bring into actual service on our own

shores, in a very short time, a fleet of at least 40 cruisers, carrying over 500 guns, besides 15 iron-clads and 2 iron torpedo-ships. Considerably more than one-half of this force is already in commission, and the remainder might be put into service as rapidly as their crews could be enlisted and organized.

THE TRANSIT OF VENUS.

In my report of last year I gave an account of the organization of the expeditions for observing the transit of Venus in December last, of the preliminary practice at the Naval Observatory, and of the final departure of the expeditions to their destinations.

The northern stations were Wladiwostok, in Siberia; Peking, in China, and Nagasaki, in Japan; the southern stations were Kerguelen Island, Hobart Town, Queenstown, New Zealand, and Chatham Island.

At no one of these stations did the observers fail entirely, though the degree of success was various at different places, the weather of course being the cause of this variation. It is gratifying to be able to say as much as this. Some parties belonging to other nations failed in consequence of bad weather.

The gentlemen composing the three northern parties returned to the United States by the established lines of communication. The party at Kerguelen Island was taken off by the Monongahela and carried to Cape Town, whence it took the regular steam-packet to England, and thence to New York. The other southern parties were carried in the Swatara to Melbourne, and thence returned to the United States by such routes as they preferred, the excess of expense thus incurred being defrayed by themselves.

Mr. Seebohm, chief photographer of the Chatham Island party, died at Bahia, Brazil, on his way out, having suffered exceedingly from seasickness during the passage. With this single exception, good health prevailed throughout, and no untoward incident occurred to interrupt or delay the progress of the several parties to their respective stations.

The commission on the transit of Venus is at present engaged in the re-examination and verification of the instruments used in the observations. It regards these observations, taken as a whole, and in connection with those of other nations, as satisfactory, and as promising valuable results.

The publication of the volume containing the observations has been placed in charge of the secretary of the commission.

SURVEYS FOR INTEROCEANIC CANAL.

Two expeditions have been sent out during the past year to complete the survey for an interoceanic canal across the great isthmus. One, an expedition under the command of Lieut. Frederick Collins, was sent in January, with instructions to make a careful survey of the proposed

Napipi Canal route, and to determine the character of the line in that vicinity found best suited to the construction of a ship-canal.

This expedition was transported to the Gulf of Urabá by the United States steamer Canandaigua, and thence up the Atrato to the field of operations in the boats of that ship. They arrived and commenced regular operations in the field on the 8th of February, and work was continued without interruption till the 28th of April. During this time a careful line of levels was run from the Atrato near the mouth of the Napipi to the Pacific, and the country along the line elaborately reconnoitered to develop its topographical features.

For the first five miles of the route swamps and morasses were encountered. From the swampy region to the Pacific the country was found to be extremely hilly. As long as the line followed the valley of the Napipi, however, it was found possible to avoid the greater part of the hills, but in the valley of the Doguado they could not be avoided, and in this section of the canal very deep cutting would be required.

The length of tunnel necessary to carry the canal under the dividing ridge, which attains a height of 778 feet, was found to be 3.5 miles. The total length of the canal line by this route, as determined by Lieutenant Collins, is 32.2 miles, and his estimates of the probable cost of the construction of a suitable canal, with all the works necessary for its preservation and successful operation, amount to $98,000,000.

The other expedition was under charge of Commander Edward P. Lull, and was directed to make surveys near the line of the Panama Railroad. This expedition sailed from New York on the 5th of January last, arrived at Aspinwall, United States of Colombia, on the 16th of the same month. Operations were at once begun and continued until the 3d of the following April, when the surveys were concluded.

The results obtained by the expedition are the location of a practicable line for an interoceanic ship-canal 26 feet deep from the bay of Aspinwall on the Carribean Sea to Panama on the Pacific. The total length of the line is 41.7 statute miles. Twelve lift-locks on each side will be required and one tide-lock at Panama, or twenty-five in all. The lift of the locks will be 10.3 feet each; that of the tide-lock 10 feet. It is proposed to cross the river Chagres by means of a viaduct 1,800 feet in length.

The water-supply is to be drawn from the river Chagres, and to be conveyed to the canal by a feeder 10.22 miles in length. The Chagres was found by careful gauging to discharge at an unusually low stage 55,900,800 cubic feet per day, a quantity considerably in excess of the maximum possible demand of the canal. Ample culverts are provided for the passage under the viaduct of all the superabundant waters of the Chagres in times of freshets.

The total estimated cost of opening a canal for ship-navigation through the Isthmus of Panama, is, after adding, to provide for contingencies, 25 per cent., to the computed cost, $94,911,360.

I have the honor also to transmit to you a report made to yourself by the distinguished commission appointed by you to consider the whole subject of communication by canal between the Atlantic and Pacific Oceans, over the Isthmus. This report is very concise, stating only results, and is made in advance of their more elaborate and final report, giving the data upon which these are founded.

After a careful examination of all the routes proposed, their unanimous conclusion is that the one known as "the Nicaraguan Route," beginning at or near Greytown on the Atlantic side, and ending north of the Rio del Brito on the Pacific, affords the most advantages and presents the fewest difficulties of any route yet found across the Isthmus.

These conclusions will command the highest respect on account of the character of the commission and the labor bestowed by them upon their work, though on a subject so important, final opinion must be postponed till all the data can be given and considered.

CENTENNIAL EXHIBITION.

The centennial building, contracted for by the executive departments, ten thousand four hundred feet of which have been assigned for articles belonging to the Navy, is well advanced, and will probably be completed by January 1, 1876. The naval contributions to the exposition, under the skillful and intelligent superintendence of Rear-Admiral Thornton A. Jenkins, are in a state of forwardness. The Ordnance Department has already on the grounds specimens of heavy ordnance, rifled and smooth bore; and the Bureaus under the control of the Navy Department give promise of a fair exhibition of the scientific and practical utility of their various specialties, which cannot fail to be of interest to the people of the United States.

HYDROGRAPHIC OFFICE.

For the services rendered to hydrography and navigation by the United States Hydrographic Office during the last fiscal year, I refer you to the report of the hydrographer to the Bureau of Navigation. In my previous reports I have asked the attention of Congress to the requirements of this office, to the necessity of enabling it to furnish all that can be demanded in charts, sailing-directions, and hydrographic information to our commercial and naval marine. As progress in this branch must necessarily be slow where laborious compilation, construction of charts, and engraving are the accessories, it is more urgent that fair appropriations should be granted from year to year, to the end that the full usefulness of the office may be developed as quickly as possible. The survey of the Pacific Ocean, its dangers and reported dangers, was necessarily abandoned upon the completion of the survey of the Gulf of California and the mouth of the Colorado River, owing to the failure of Congress to grant the appropriation requested for its continuance.

The Department is fully alive to the necessity of conducting these

foreign surveys, especially in the Pacific Ocean, of employing our Navy officers during peace in a work so important to commerce and to geographical science, and of adding our mite to the explorations constantly carried on by other great maritime nations, in the surveying and mapping out the unsurveyed world, which still constitutes about one-half of the coasts and waters of the globe. It was with great regret that this Department was compelled to withdraw the United States steamer Narragansett, Commander George Dewey, from the survey of the Pacific Ocean. His work, commenced on the coast of Lower California and abandoned after the completion of the survey of the gulf, was well done, and gave promise of ability and accuracy in carrying out the further surveys contemplated by this Department. I recommend that this survey be continued; that two three-masted schooners be built or purchased for the completion of this work, and for service in surveys under the Navy Department. I also request that the amount requisite to complete the engraving of the charts of the Gulf and coast of Lower California, already constructed, may be granted.

Under the Hydrographic Office the work for the determination of the geographical positions of various points in the West Indies has been diligently prosecuted by Lieut. Commander F. M. Green and the officers of the United States steamer Fortune, and is now being continued by the same officers in the United States steamer Gettysburg, the Fortune having proved unfit for prolonged service at sea. This work calls for no extra expenditure, and the results thus far indicate its great importance. Much interest has been manifested in its success by geographers both at home and abroad, and the most gratifying courtesy and assistance have been extended to the officers of the expedition by both foreign authorities and the officials of the telegraph companies whose cables are being used for the determination of longitudes. The positions of Panama, Aspinwall, Kingston, Santiago de Cuba, and Havana have been determined with precision, and the work of extending the measurements through the Windward Islands to the continent of South America is now being performed. In connection with this work the commanding officer of the Gettysburg has been directed to collect material for the completion of a much-needed directory for the navigation of the West India Islands, and to make deep-sea soundings in various localities where the depths of the ocean have not been examined, and where such examination will be of scientific importance.

Should it be found practicable, it is the intention of this Department to continue these valuable observations along both coasts of South America, using the telegraphic cables for determining, with an accuracy otherwise unattainable, the vexed question of longitudes. The public spirit of the telegraph companies who have offered the use of their cables for longitude determinations is worthy of high commendation.

I would reiterate the opinion, expressed in my former reports, that the building at present occupied as the United States Hydrographic Office

is unsuitable for that purpose, from want of space and from having no fire-proof attachment, and I recommend, as heretofore, that means be taken as soon as possible for the convenience of the office and the safety of the valuable data there collected.

NAVY-YARDS.

For the past few years no appropriations for new buildings or other works of improvement have been made for several of our navy-yards, and the small amount appropriated for repairs and preservation has proved insufficient to keep the buildings, stocks, and wharves in that thorough state of repair and efficiency which should characterize all public works.

Kittery, Maine.—No new works have been built during the past year. The workshops and wharves are in a fair condition, but repairs will be necessary during the next year.

Boston.—No new works have been undertaken, all expenditures having been made for repairs. An appropriation for building a boundary-wall on the west side of the yard is much needed, the only inclosure being a dilapidated wooden fence, part of which forms the site of a large coal-shed situated upon the adjoining private property. In case of fire, the property in the yard contiguous to this shed would be in much danger. Some of the buildings in the yard are old—temporary structures—unfit for the purpose for which they are used; and the necessity of an appropriation to supply their place is pressing. The other objects submitted are for the purpose of facilitating the transportation of material; and the result of their construction will be a saving of labor and consequent economy.

New York.—Nothing has been done beyond the current repairs. The appropriations asked for the protection of that part of the yard bordering upon the Brooklyn docks, and for the improvement and enlargement of the ordnance-dock, are very much needed.

Quite a large area of new ground has been filled in during the past year without cost to the Government, and is now valuable ground for all purposes of the navy-yard.

I beg to renew the recommendation made in my last annual report, as to the conservation of this valuable navy-yard in its site and territory.

Philadelphia.—In accordance with the acts of the last Congress measures have been adopted for the removal of the public property at this navy-yard to League Island, and it has been advertised to be sold at an early date.

League Island.—The large store-house for steam-engineering has been carried up one story; the iron-plating shop is near completion; temporary wooden buildings have been erected for the protection of the property from the Philadelphia navy-yard. The ship-houses at Philadelphia yard have been taken down and re-erected at League Island.

In view of the large amount of work to be done at this important

naval-station, in order to place it in a condition to supply the requisite facilities for building and equipping vessels of war, liberal appropriations are urged as a measure of wise economy.

Washington.—No appropriation for repairs was made by the last Congress for this navy-yard, and the buildings will necessarily require a larger expenditure of money to place them in thorough condition than if the repairs had been continuously carried on. This yard contains a quantity of excellent machinery, and as a manufacturing-yard has no superior in this country.

Norfolk.—The excellent location of this navy-yard commends it to the favorable consideration of Congress. It has been partially rebuilt, but much yet remains to be done before it will be restored to its former state of efficiency. Appropriations are asked for an additional timber-shed and for a shell-house at Craney Island.

Pensacola.—During the past year the old hospital-building within the walls of the yard has been torn down and destroyed, and a new hospital erected upon the ruins of one without the walls, destroyed during the war.

While it is not deemed wise to place this yard in condition for building ships, yet it is considered eminently proper that it should possess all requisite facilities for docking and repairing the vessels of the North Atlantic squadron. Several additional buildings are necessary, and estimates are submitted for another timber-shed and a machine-shop for steam-engineering.

It is hoped that two sections of the iron sectional-dock for this navy-yard will be finished during the present fiscal year.

Mare Island.—At this important naval arsenal the principal work during the past year has been upon the new stone dry-dock and upon the iron-plating shop. The work upon the dock has been pushed forward as rapidly as the small appropriations would permit, and thus far is well done, and reflects credit upon the engineer-in-charge. The estimate submitted for the continuance of the work is as small as a due regard to economy will sanction.

New London.—During the past year the new building for equipment-purposes has been completed, and the wharf accommodations much enlarged. An additional appropriation for the continuance of permanent improvements is recommended.

YELLOW-FEVER AT PENSACOLA.

This subject was particularly referred to in the last annual report of this Department, the officers and others at the navy-yard there having the previous summer and fall passed through an epidemic of a severe character, fatal to many of them. There has been more or less fear during the past season of the re-appearance of this disease within the limits of the station, particularly as it raged with extreme violence for several weeks at the military post, the Barrancas, near by. Unremitting efforts had been made by the commandant of the yard during last

winter and spring to put it in the best possible sanitary condition, for which he had full authority and directions from the Department. As soon as the fever appeared in the vicinity he was further authorized to use all means in his judgment calculated to preserve the health of all under his command and protect the public property under his charge. The yard had already been thoroughly fumigated and disinfected by the best means known; old infected buildings and materials had been removed, and temporary quarters for hospitals, &c., provided. In addition to this a strict quarantine and its rigid enforcement, and the removal of the unacclimated to a safe locality in the vicinity, were adopted as the only other means, save a total abandonment of the station, likely to secure immunity from a repetition of the previous calamity. These measures appear to have been well conceived and successfully executed; for while the disease prevailed to a distressing extent at the military post, the general health of the naval command was well preserved. A few cases of fever, attributed to violation of regulations, some of which proved fatal, occurred among the marines at the close of the season; but the health of the station is now good, and all quarantine restrictions have been removed.

TRAINING OF BOYS.

The Department has deemed it advisable to resume the enlistment of boys, to serve till reaching twenty-one years of age, under the existing laws enacted for that purpose. The great want of intelligent native-born seamen to man our vessels has been seriously felt of late years, and it becomes a measure of national importance to remedy this evil. Other nations have felt the growing scarcity of good seamen to man their navies, and are attempting, by establishing schools and training-ships in their ports, to provide for the education and training of boys to become sailors. It is said that England turns out yearly 3,000 boys from her training-ships for her navy. Some efforts have formerly been made under the laws of Congress to enlist boys as apprentices, but they have failed, owing partly to the very elaborate system of education and training adopted, and partly to the fact that inducements were held out to the boys which could not be realized. Under the present system, which is purely experimental, about 250 have been enlisted and placed on board training-vessels, where they receive an elementary English education, and are initiated in all the duties of sailors on a man-of-war.

The object of the system adopted is solely to make the boys good and intelligent sailors for the Navy, without attempting to prepare them for any higher grade. The Chief of the Bureau of Equipment, &c., reports very favorably of the progress of the experiment, and asks for the enactment of a law authorizing the enlistment of 500 boys, with an outfit of $50 to each, which recommendation I earnestly recommend for the favorable consideration of Congress.

TIMBER.

I am constrained to repeat the recommendations of my last report as to the wisdom, indeed, almost absolute necessity, of securing, before it passes entirely away, as great a quantity as possible of our sea-shore live-oak, the best ship-timber of the world. The rapid deterioration of all our vessels built of other wood constantly warns us how invaluable is this timber, now so rapidly passing away. As I have before said, it is the growth of centuries, and when once gone will never be replaced. The supply, which was never large, is being rapidly exhausted, and it becomes yearly more difficult to procure, as what is left is being eagerly bought up for shipment abroad. All that we had of it, laid up by the old Navy commissioners, was consumed during the war, and the Department has been endeavoring for the last few years, whenever it had the opportunity and the means, to secure what could be had for present use, or to be laid up to season for the future use of the Navy. All our new wooden ships have been built of it, and whatever building or repairs are done should be, as far as possible, of this lasting material, which is as useful for the backing of armored ships as for the frames of wooden cruisers. A quantity sufficient to build quite a number of ships has been gathered at the various navy-yards; and annexed to this report will be found a statement of what is required of this material to complete the frames for ships now on hand. But to buy a requisite amount of this expensive material out of current appropriations would cripple the Department too much in other things. In the opinion of the Department, measures should be taken, if possible, to prevent the exportation of such of this timber as is left on our southern coast, and to secure it for the use of the Government.

ORDNANCE.

This Bureau has been principally engaged in the routine duties of arming our men-of-war, and supplying the requisitions of squadrons and single cruising ships abroad.

At the same time experiments have been made with regard to the introduction of breech-loading howitzers into our system of boat-armament; and the results have been so satisfactory as to warrant their manufacture and issue as far as the limited appropriation will permit. A very powerful addition also to our boat-equipment is found in the Gatling gun, which is now issued to all ships.

The necessity for making some provision for arming our ships with rifled cannon is so obvious and pressing that, pending the construction of new guns, the Department proposes to convert a limited number of XI-inch smooth-bore guns into safe and efficient rifles by the insertion of wrought-iron tubes; the recent experiments in this direction, made by the

Army Ordnance, having clearly determined the practicability of making the conversion with safety and certainty.

A series of very interesting experiments in ordnance, made partly under a special appropriation and finished under contract with the Department, has just been concluded at Nut Island, in the harbor of Boston. These experiments have in view the possibility of utilizing the large supply of smooth-bore ordnance accumulated during the war, and converting them, at small expense, into rifled cannon of great range and power. The results are understood to be of a very favorable character, but the regular reports of the officers detailed to witness the experiments have not yet been submitted, though expected in a few days. When these are received and considered, I shall have the honor, with your permission, to submit them to Congress for such action as they may think best for the interest of the service.

An appropriation is recommended for the gradual armament of our ships with rifled cannon.

TORPEDOES.

The torpedo-school at Newport continues in a high state of efficiency, and the knowledge obtained by the officers in the manufacture and use of every description of this terrible means of warfare is of inestimable value to the service. A recent personal inspection of the station satisfies me that no branch of our naval system deserves more care and support.

In concluding his report, the chief of this Bureau calls attention again to the dangerous proximity of the naval magazine at Ellis's Island to the city of New York and to Jersey City. This subject has already been brought to the attention of Congress, and a board, appointed for the purpose of examining into the matter, made a report recommending the removal of the magazine to a point up the North River. No further action, however, was taken, and the magazine is still kept on the island.

THE MARINE CORPS.

The commandant of the Marine Corps makes a favorable report of the discipline and service of the officers and men of his command. The corps is reduced a thousand men from its authorized number by the limitation of the appropriation. More than two-thirds of the whole number are at sea, and the remainder are invaluable as the nucleuses of organization and drill, and as guards of the public property at the various stations. I think if Congress would provide that the officers of this branch of the naval service should be appointed from the Naval Academy, and subjected to regular examinations for promotion, the standing and efficiency of the Corps would be largely improved, and the Government would at the same time utilize to a larger extent the educational opportunities afforded to its beneficiaries at the academy.

NAVAL-PENSION FUND.

The following is a statement of the number and yearly amount of pensions of the Navy on the rolls November 1, 1875, and the amount which was paid during the last fiscal year:

	On the rolls November 1, 1875.	Pensions on rolls November 1, 1875.	Amount paid for pensions during the fiscal year ended June 30, 1875.
Navy invalids	1,690	$192,613 75	$185,675 82
Navy widows and others	1,824	295,960 00	334,672 65
Total	3,514	488,573 75	520,348 47

ESTIMATES AND EXPENDITURES.

The appropriations applicable to the fiscal year ending June 30, 1875, amounted, in the aggregate, to $19,273,731.27, and the actual expenditures for the same period, to wit, from July 1, 1874, to June 30, 1875, from these appropriations, amounted to $18,825,526.97, or about $450,000 less than the whole amount.

The appropriations made available for the current year, commencing July 1, 1875, amount, in the aggregate, to $18,301,306.90. The amount of these appropriations for the current year, drawn since July 1 and up to the last statement, is $11,019,004.36, which, after deducting the amount refunded during that period and the amount remaining in the hands of the paymasters and agents of the Government, will leave about nine millions as the sum actually expended from the current appropriations during the working summer months of the present year.

The monthly expenditure of the appropriations for the fiscal year 1874–'75 and for the present year, to the present month, will be found in the appendix to this report.

The following estimates have been submitted for the next year:

Estimates.

Pay of officers and seamen of the Navy	$7,600,000 00
Pay of civil establishment in navy-yards	210,000 00
Ordnance and torpedo corps	502,000 00
Coal, hemp, and equipments	1,500,000 00
Navigation and navigation supplies	115,000 00
Hydrographic work	67,800 00
Naval Observatory, Nautical Almanac, &c	46,000 00
Repairs and preservation of vessels, &c	3,305,000 00
Steam-machinery, tools, &c	1,800,000 00
Provisions	1,279,000 00
Repairs of hospitals and laboratories	20,000 00
Surgeons' necessaries	40,000 00

Contingent expenses of various departments and bureaus	365,000 00
Naval Academy	198,382 40
Support of Marine Corps	924,807 00
Naval Asylum, Philadelphia	58,177 00
Maintenance yards and docks	360,000 00
	18,891,166 40

The cost of the new buildings asked for, and the current expenses for repairs of all kinds to the docks, buildings, and public works at the various navy-yards and stations of the country, is estimated to require, in addition, the sum of $1,775,000.

This makes the whole amount of these estimates about $220,000 less than the amount asked for last year for like purposes.

There is also an additional sum of $1,957,000, asked for by the various bureaus and submitted by the Department, for various objects of pressing importance, but which are not necessarily included in the estimates for the general maintenance of the Navy proper.

CONDITION OF THE NAVY.

It is gratifying to be able to report that the Navy is now in a stronger and more efficient condition than it has ever been at any time, at least since the commencement of your administration. It is not very strong in the number nor in the classes of its ships; but what there are of them are in as good condition as it is practicable to keep such materials of war, under the various and trying conditions to which they are, in the nature of their service, constantly exposed. A far larger proportion than usual of our wooden ships are ready for service; our iron-clad fleet is efficient; our store-houses are fairly stocked with ordnance, equipments, and supplies, and we have on hand a fair supply of the best material for the building and repair of ships.

The service has been placed in this state of efficiency, compared with what existed a few years ago, by utilizing, except in the case of the eight sloops built under special appropriation, what could be spared from the current appropriations, and from the appropriations made during the Cuban emergency, and applying these means practically and steadily toward putting what was worth saving of the Navy, as it existed, in as permanent good condition as the state of the ships and the means at command permitted. The wisdom of this policy is, I think, illustrated by the strength of our position to-day. It would be also well, I think, if Congress would afford the means to finish at once the repairs of the five double-turreted monitors, since when they are finished, according to the present design, our iron-clad fleet will be much more powerful; and they are, while undergoing repairs, useless for any present purpose, and the process of repairing them out of what can be spared from current appropriations, not only cripples the Department in all its other operations, but is of course very slow. With these added to it, our iron-

clad force would, for purposes of defense, present a very substantial barrier to anything which would cross the seas and attempt to enter our ports.

IN CONCLUSION,

I beg to express my obligations to the chiefs and officers of the several bureaus of the Department for their good judgment, skill, and efficiency in the various branches committed to their care.

The Secretary is indeed greatly indebted to them, and to the experienced chief clerk of the Department, for the very valuable assistance constantly afforded him in the discharge of his duties.

GEO. M. ROBESON,
Secretary of the Navy.

The PRESIDENT.

PAPERS

ACCOMPANYING

REPORT OF THE SECRETARY OF THE NAVY.

SUPPLEMENT.

Exhibit of expenditure chargeable to Navy appropriations.

Date.	Drawn.	Refunded.	Expended.
Appropriations for 1874–'75.			
1874.			
July	$2,632,305 00		$2,632,305 00
August	2,376,229 03		2,376,229 03
September	2,705,056 29	$140 00	2,704,916 29
October	2,258,742 67	100,796 88	2,157,945 79
November	1,877,841 88	154,140 44	1,723,701 44
December	2,460,573 09	760,099 21	1,700,473 88
1875.			
January	1,671,148 54	416,050 28	1,255,098 26
February	1,061,027 01	201,968 77	859,058 24
March	1,476,529 24	269,336 77	1,207,192 47
April	1,541,966 84	555,555 15	986,411 69
May	859,787 72	227,224 19	632,563 53
June	693,192 27	103,560 92	589,631 35
	21,614,399 58	2,788,872 61	18,825,526 97
Appropriations for 1875–'76.			
1875.			
April	56,585 00		56,585 00
May	12,008 00	1,243 92	10,764 08
June	29,750 00		29,750 00
July	3,064,503 07	3 76	3,064,499 31
August	2,889,458 45	11,000 00	2,878,458 45
September	2,242,056 25	14,166 54	2,227,889 71
October	2,724,643 59	482,943 47	2,241,700 12
	11,019,004 36	509,357 69	10,509,646 67

MOVEMENTS OF VESSELS ON THE SEVERAL STATIONS.

THE NORTH ATLANTIC STATION.

The force on this station, under the command of Rear-Admiral J. R. M. Mullany, consists of the Worcester, (flag-ship,) 15 guns; Plymouth, 12 guns; Ossipee, 8 guns; Shawmut, 3 guns; Dictator, (iron-clad,) 2 guns; Canonicus, (iron-clad,) 2 guns: Pawnee, battery of howitzers;

and the Pinta, 2 guns. The Powhatan, 17 guns; the Swatara, 8 guns; the Alert, 4 guns; the Huron, 6 guns. The Rio Bravo and the Despatch have recently been added to it. The following vessels were also attached to the station part of the year: Colorado, Canandaigua, Wachusett, and Kansas.

The Worcester sailed from New Orleans March 22, 1875, and arrived at Pensacola on the 24th; sailed on the 27th for Havana, and arrived there on the 30th. On the 31st, Rear-Admiral Mullany shifted his flag to the Colorado, and on that day both vessels sailed for Sand-Keys, anchoring off there April 1; sailed on the 10th for Port Royal, anchoring off the bar on the 13th, and steamed to anchorage in the sound on the 19th. On the 13th of May, Rear-Admiral Mullany transferred his flag back to the Worcester, which vessel remained at Port Royal until the 28th of June, when she sailed for Norfolk, arriving there July 1; sailed from Norfolk for Colon, United States of Colombia, on the 2d of September, touched at Kingston, Jamaica, on the 10th, sailed on the 11th, and reached Colon on the 14th; sailed October 24 for Key West, touching at Kingston, Jamaica, on the 28th; sailed thence on the 30th, taking the windward passage, and running along the north side of Cuba, touched at Havana November 3, and thence to Key West, arriving on the 4th; sailed on the 6th and arrived at Hampton Roads on the 11th, and anchored off Norfolk on the 13th, where she remains.

The Plymouth having been ordered to the North Atlantic station, was put in commission October 10, 1874, and sailed from the navy-yard, Portsmouth, N. H., on the 21st; arrived at Boston on the 22d; sailed November 7, and arrived at Newport on the 8th; sailed, and arrived at New York on the 9th; sailed thence January 9, 1875, and arrived at Key West on the 20th; sailed April 8, touched at Havana, and arrived at Matanzas on the 10th; sailed thence on the 17th to Samana Bay, and thence to San Juan de Porto Rico, arriving there May 5; left Porto Rico on the 6th, and arrived at St. Thomas on the 12th; sailed on the 13th, arriving at Santa Cruz on the same day; sailed again on the 18th, and arrived at Sand Key, Key West, on the 29th; sailed thence June 4, and arrived at Port Royal June 7, with provisions for the squadron; sailed thence on the 25th, and arrived at Key West on the 29th; sailed for Rio Grande July 5, and anchored at the mouth of the river on the 11th; sailed August 20, to the aid of the Rio Bravo, ashore off Sabine Pass, arriving there on the 23d, and left the same day for the mouth of the Mississippi River; sailed thence on the 27th, and arrived at Port Royal September 6; sailed on the 8th, and arrived at Norfolk on the 14th, where she remains.

The Ossipee sailed from Samana Bay February 9, 1875, and arrived at Key West on the 20th; sailed April 7, and arrived at Vera Cruz on the 15th; left on the 17th, arriving off Tampico on the 19th; sailed thence on the 21st, and on the 24th anchored off Rio Grande; got under way again, and reached Galveston on the 27th; sailed thence on the 29th, and arrived at Pensacola May 5; sailed May 13 for Aspinwall, and arrived there on the 25th; sailed thence July 1, and reached Sand Key, Key West, on the 7th; sailed on the 10th, and reached Port Royal on the 13th; sailed August 9, and arrived at Norfolk on the 12th; sailed October 27, and arrived at Bridgetown, Barbadoes, November 9; thence to Port Royal, S. C., arriving November 26, where she remains.

The Shawmut sailed from New Orleans March 20, 1875, and arrived at Pensacola on the 22d; sailed on the 27th, and arrived at Key West on the 30th; sailed April 9, and arrived on the 11th at Nassau, N. P.; sailed on the 23d, and arrived at Watling's Island on the 24th; sailed

on the 26th, and arrived at Port Royal, S. C., on the 30th; sailed May 11, and arrived at Port Royal, Jamaica, on the 29th; left June 3, and arrived off Bonacca, Bay Island, on the 7th, and anchored the same day in the port of Medina; sailed on the 8th, and arrived on the 9th at Balize; sailed on the 14th, and reached Havana on the 17th; sailed on the 18th; reached Sand Key July 1; sailed on the 3d, and arrived at Port Royal, S. C., on the 5th; sailed on the 10th, and arrived at Norfolk on the 13th; sailed August 15 for Aspinwall, and arrived September 18, where she remains.

The Dictator sailed from Key West April 10, for Port Royal, towing the Pawnee, and anchored there on the 13th, where she remains.

The Canonicus arrived off New Orleans the 28th October, 1874, and is at present stationed there.

The Pawnee continued at Key West, as receiving and store ship, until April 10, 1875, when she sailed, in tow of the Dictator, for Port Royal, arriving there on the 13th, where she remains.

The Pinta was at anchor off Key West until November 25, 1875, when she sailed for New Orleans, arriving there December 3; sailed for Pensacola January 30, 1875, and arrived there on the 31st; sailed on the 3d of February, and arrived at Havana on the 6th; sailed on the 11th, and arrived at Key West on the 12th; sailed April 10, and arrived at Port Royal on the 13th, where she remains.

The Colorado sailed from Key West March 11, 1875, for Havana, where Rear-Admiral Mullany hoisted his flag temporarily on board, and sailed March 31 for Sand Key, Key West, arriving there April 1; sailed the 10th for Port Royal, arriving off light-ship on the 12th; came inside and anchored in Port Royal Sound on the 17th. On the 13th of May, Admiral Mullany having hauled down his flag and hoisted it on board the Worcester, the Colorado stood out to sea, but meeting with strong head-winds cast her anchor outside, and on the 14th sailed for Hampton Roads, where she arrived on the 20th; sailed thence for New York, arriving on the 30th, and went out of commission June 9.

The Canandaigua sailed from New Orleans January 7, 1875, for Aspinwall, United States of Colombia, and arrived there on the 18th; sailed March 20, and arrived at Cartagena on the 29th; sailed April 18, and anchored off the Atrato River on the 19th; took on board the surveying party and sailed May 6 for Aspinwall, arriving there on the 7th; sailed June 10, and arrived at Pensacola on the 16th; sailed thence and arrived at New Orleans July 2; left August 5, and arrived at Port Royal on the 31st, having been detained at the bar of the mouth of the Mississippi River, on her way to go to the relief of the Rio Bravo, until the 25d; sailed from Port Royal, and arrived at Norfolk September 18, and went out of commission November 8.

The Wachusett sailed November 7, 1874, from New Orleans, touched at Key West, and thence proceeded to Hampton Roads November 23, arrived at Norfolk December 5; sailed thence for Boston December 12, arrived there on the 20th, and went out of commission on the 29th.

The Kansas sailed from New Orleans November 7, 1874, and arrived at Key West on the 13th; sailed thence on the 26th, and arrived at Havana on the 27th; sailed on the 28th, and anchored December 3 at Cape Haytien; sailed December 5; at Samana Bay on the 7th; sailed on the 8th for St. Domingo City, but encountered a norther and had to put back to Curaçoa for coal, anchoring there on the 15th; left Curacoa on the 17th, touched at Puerto Cabello on the 19th, sailed on the 21st, and arrived at La Guayra on the 22d; sailed thence same day, and arrived at Aspinwall on the 27th; remained there until the 2d of Jan-

uary, 1875, and proceeded thence to Havana, arriving on the 11th; sailed on the 18th, and arrived at Key West on the 19th; sailed February 23, and arrived at Pensacola March 1; sailed on the 10th, and arrived at New Orleans on the 12th; left New Orleans July 5, and arrived at Pensacola on the 6th; sailed on the 8th for Portsmouth, N. H., arriving there on the 21st, and went out of commission August 10.

SOUTH ATLANTIC STATION.

The force at present on this station consists of the flag-ship Brooklyn, the Monongahela, the Wasp, and the Frolic, and is under the command of Rear-Admiral William E. Le Roy.

The Lancaster, which had been the flag-ship of the station, sailed from Rio de Janeiro April 22, at which port she had arrived, April 10, from Montevideo. In consequence of yellow fever on board she put into Bahia, Brazil, arriving there May 9, and, sailing again the 20th, she reached Hampton Roads June 26; proceeded thence to Portsmouth, N. H., arrived July 12, and, after serving out quarantine, was put out of commission July 31.

The Brooklyn left the navy-yard, Norfolk, 23d of January, 1875, for the South Atlantic station, to be the flag-ship, and arrived at Rio de Janeiro May 20, 1875, and Rear-Admiral Le Roy hoisted his flag on board. She left Rio de Janeiro 6th September for Santa Catharina, and arrived there on the 12th and practiced with boats; left 2d October, and arrived at Montevideo on the 8th; she was still there 12th October, the date of the last report.

The Monongahela left Rio de Janeiro October 1, 1874, for the Kerguelen Islands, to bring away the observers of the transit-of-Venus expedition; arrived at Cape Town on the 29th October, 1874; left on the 16th November; arrived at Royal Sound, Kerguelen Islands, December 9; left Kerguelen Islands 12th January, 1875, and arrived at Cape Town February 6; sailed, and arrived at Rio de Janeiro April 19. On the 21st April, Rear-Admiral Le Roy transferred to her his flag temporarily, until the arrival of the Brooklyn, May 2. She proceeded southward and visited Santa Catharina, and returned to Rio de Janeiro June 23; left Rio de Janeiro for Montevideo July 1, and arrived on the 10th; left Montevideo August 11, for Rio de Janeiro.

The Wasp left Montevideo December 4, 1874, with General Caldwell, United States minister, for Asuncion, and, after a short stay, returned to Montevideo. April 13, 1875, left for the Rosario River, for target-practice; April 18, left for Lujan River; 24th April, commenced preliminaries for surveying the Lujan, Capitan, Alavieja, and Currabelas Rivers; was engaged surveying from the 26th to 30th; left Lujan, and arrived at Buenos Ayres May 10; 14th to 21st was off Calonia surveying; 21st, left Calonia for Montevideo; 22d, arrived; October 12, 1875, was ordered to Calonia to protect American interests, on account of information received from the United States consul.

The Frolic was put in commission August 18, 1875, at Philadelphia, and ordered to Norfolk; left navy-yard, Norfolk, on the 29th September, for the South Atlantic station, to take the place of the Wasp. She touched at the Bermudas, arriving October 6, and at Bridgetown, Barbadoes, arriving October 21, at which place she was heard from October 22.

EUROPEAN STATION.

The following vessels comprise the force on the European station under the command of Rear-Admiral John L. Worden, who relieved

Rear-Admiral A. Ludlow Case, February 3, 1875: Franklin, (flag-ship,) 39 guns; Congress, 16 guns; Alaska, 12 guns; Juniata, 8 guns.

The movements of the vessels have been as follows:

The Franklin left Villefranche and sailed for Lisbon, arriving there on the 3d of February, 1875, and on that day Rear-Admiral Worden hoisted his flag on board and assumed command of the European station. On the 11th sailed for Tangier, arriving there on the 13th; left Tangier February 17, and proceeded to Gibraltar, arriving there the same day; sailed from Gibraltar on February 20, for Villefranche, arriving there on the 25th; sailed thence on April 15, and arrived at Spezzia April 17; sailed thence on the 6th of May, and reached Villefranche on the 7th of May; left Villefranche May 17, and arrived at Gibraltar May 22; sailed from Gibraltar May 27 for the German coast; on June 5, took a Channel pilot, and on the 6th anchored for a short time off Deal, and on the 8th entered the Elbe and proceeded up the river to an anchorage off Glückstadt, where she remained until the 20th of June, when she sailed for Kiel, arriving there on the 24th; and sailed July 1 for Stockholm, anchoring twelve miles below that city July 5; sailed July 11 for Cronstadt, Russia, arriving there on the 13th; left Cronstadt July 20, visited Copenhagen, and arrived off Southampton August 9; left Southampton August 30, and arrived at Lisbon September 5, and then proceeded to Villefranche, where she was when last heard from.

The Congress at Villefranche, March 2, 1875; left Villefranche 28th May, and arrived at Malaga June 3, where she remained until the 8th, making a survey of a supposed shoal off that harbor, and then sailed for Gibraltar, arriving there on the 9th; left Gibraltar on the 15th, and arrived at Algiers on the 18th; sailed on the 28th, and arrived at Goletta, Tunis, July 1; sailed on the 5th, and arrived at Malta on the 7th; sailed on the 13th, and arrived at Tripoli on the 14th; sailed on the 17th, and arrived at Alexandria on the 24th; sailed on the 31st, and arrived at Corfu August 5; sailed on the 12th, and arrived at Tripoli on the 17th; sailed on the 28th, and arrived at Corfu on the 31st; sailed on the 2d of September, and arrived at Trieste on the 6th; sailed on the 29th, and arrived at Venice the same day; sailed on the 2d of October, and arrived at Naples on the 7th; sailed on the 10th, and arrived at Villefranche on the 13th of October.

The Alaska, at Spezzia, undergoing repairs March 2, 1875, came out of docks April 8; left Spezzia May 10, and arrived at Genoa the same day; left Genoa May 15, and arrived at Villefranche on the 16th; left Villefranche May 18, and arrived at Gibraltar on the 22d; left Gibraltar on the 24th, and arrived at Cadiz on the same day; left Cadiz on the 25th, and arrived at Lisbon on the 26th; left Lisbon on the 31st, and arrived in the river Elbe June 8, and anchored near Glückstadt June 10; went up to Hamburg, bearing the flag of Rear-Admiral Worden, on the 19th; returned to the anchorage June 20; sailed for Kiel, arriving there June 24. July 1, sailed for Stockholm, and on the 5th anchored twelve miles below that city. Sailed July 11 for Cronstadt, Russia, and arrived there on the 13th; left Cronstadt July 20, arriving at Southampton August 4; left Southampton August 28 for Lisbon, leaving that port September 10, and arrived at Gibraltar on the 19th; sailed for Carthagena on the 22d, arriving there on the 23d; sailed for Alicante on the 25th, and arrived there on the 26th; sailed for Valencia on the 27th, and arrived there on the 28th; sailed for Tarragona on the 2d of October, and arrived there on the 3d; sailed for Villefranche and arrived there on the 9th.

The Juniata at Villefranche March 2, 1875; left Villefranche April

15, and arrived at Spezzia April 17; left Spezzia on May 6 and reached Villefranche on the 7th; sailed May 17 and arrived at Gibraltar on the 22d; sailed from Gibraltar for the German coast, and on the 30th, her machinery being disabled, put into Lisbon, arriving there on the 31st; sailed from Lisbon June 9, and arrived at Hamburg on the 20th; and as her machinery was again broken, remained there for repairs; and thence to the Downs; and thence to Southampton, arriving there August 9; sailed thence on the 28th, and arrived at Villefranche September 3; and thence to Lisbon; left Lisbon on the 9th, and arrived at Gibraltar on the 11th; sailed on the 13th and arrived off Tetuan, Barbary, the same day; sailed thence on the 14th, and arrived at Oran, Algeria, on the 16th; thence on the 18th, and arrived at Algiers on the 19th; sailed from Algiers on the 22d for Malta and the ports of Egypt and Syria.

NORTH PACIFIC STATION.

The force on this station, under the command of Rear-Admiral John J. Almy, consists, at present, of the Pensacola, (flag-ship,) 22 guns; Benicia, 12 guns; Tuscarora, 6 guns.

The Saranac, 11 guns; Portsmouth, 14 guns; and Narragansett, 6 guns, have been a portion of the year on this station.

The movements and proceedings of the vessels have been as follows:

Pensacola, second rate, wooden, screw, 22 guns, under the command of Capt. Bancroft Gherardi, in November and December, 1874, was undergoing repairs at the navy-yard, Mare Island, California. The early part of January, 1875, at anchor off Mare Island, awaiting arrival of His Hawaiian Majesty, whom she was to convey to Honolulu. On 2d February, received His Majesty on board, and sailed for Hawaiian Islands; arrived on 15th instant, and remained moored of Honolulu until the 28th. On the 12th instant, it being the first anniversary of the election of His Majesty to reign over the kingdom and people of Hawaii, although at sea, the flags were hoisted and carried through the day, the Hawaiian royal standard at the main. At 1 p. m. all the officers of the ship in a body, and in appropriate uniform, called to pay their respects to the King and offer their congratulations, which he seemed to appreciate highly.

During the month of March, at anchor in harbor of Honolulu, and exercised crew daily at routine drill and exercises of sails and spars.

Remained at anchor during the month of April, and exercised regularly at masts, yards, sails, boats, &c. On 10th May sailed on a cruise to the other islands of Hawaiian group; visited Lahaina on May 11, Mokena Bay on 14th, and Hilo on 17th, and remained until end of month; until 4th of June making passage from Hilo to Honolulu; remained at Honolulu until 29th July, when sailed for a month's cruise among the islands; anchored off Lahaina 30th and 31st July; during August cruising among Hawaiian Islands, visiting the islands of Maui and Hawaii; on the 25th September, at anchor off Honolulu, and sailed that day for Lower California and west coast of Mexico.

Saranac, second rate, wooden, paddle, 11 guns, under the command of Capt. W. W. Queen, visited La Paz, in Lower California, in November, 1874, and cruising on special duty in Gulf of California and on passage to San Francisco, where she arrived on the 28th November. She visited Guaymas, Mazatlan, and San Blas, and La Paz twice, spending some time there, owing to the troubles, and her presence was of very great service. During December, 1874, January and February, 1875, was at anchor off San Francisco, and had orders to proceed on a cruise northward about middle of March, if ready for sea; sailed from San

Francisco on 7th June for Alaska, under special orders from the Navy Department, and was totally lost in Seymour Narrows, British Columbia, on the 18th June, by being driven by a strong current against a sunken rock.

Benicia, second rate, wooden, screw, 12 guns, under the command of Capt. Wm. E. Hopkins; until 17th of November, 1874, at anchor in harbor of Honolulu, Hawaiian Islands, awaiting embarkation of His Majesty the King of the Hawaiian Islands, and sailed that day with the King for San Francisco, arriving on the 28th. On the 2d December proceeded to convey His Majesty King Kalakuan to Mare Island. Returned to San Francisco and remained at anchor until the 10th instant, when she proceeded to Mare Island, where she remained during the balance of the month. She was ordered to proceed northward about the middle of March, and during April was cruising in the Alaskan waters. At anchor in the port of Esquimolt until 7th of June, when she sailed for San Francisco, arriving on the 13th. During July she sailed for Esquimolt, (Victoria,) British Columbia, where she remained until the 12th, and, returning to San Francisco, arrived on the 17th.

Portsmouth, third rate, wooden, sails, 14 guns, under command of Commander Joseph S. Skerrett. In November, 1874, was engaged in examining Kodiak Islands with Icelandic commission and making passage to San Francisco. During December was at anchor off San Francisco; remained at anchor until the 4th January, 1875, when she sailed for Honolulu, Hawaiian Islands, and was engaged remainder of month making passage to that place. During February was at anchor off Honolulu preparing for cruise to west coast of Mexico and Central America. On the 4th March sailed for Gulf of California and west coast of Mexico, and during April, May, and June was cruising, and until the 14th July making passage from Acapulco to San Francisco. The remainder of month at anchor either there or at Mare Island.

Tuscarora, third rate, wooden, screw, 6 guns, under command of Commander Henry Erben; sailed from San Francisco on November 1, 1874, for Honolulu, and during passage to that port will run a line of deep-sea soundings, as directed by the Department. During December, 1874, and January, 1875, was at anchor in Honolulu, Hawaiian Islands, preparing for a cruise to the Samoan Islands. On the 4th March sailed for Samoan Islands, having on board, as passenger, Mr. A. B. Steinberger, United States commissioner to that group of islands. During April was on special service among islands of Samoan group and until 20th June, making passage to Honolulu, and from that date until end of month at anchor in harbor preparing for sea under orders to San Francisco. Her mission to Samoan Islands was very successful, uniting the different chiefs in electing a king, in forming a constitution, and establishing a national flag. She sailed for San Francisco on 17th July.

SOUTH PACIFIC STATION.

The vessels now on this station are the Richmond, (flag-ship,) 14 guns; Omaha, 12 guns; and Onward, 3 guns. The movements of the vessels have been as follows:

Richmond, (flag-ship.) The Richmond arrived at Panama on the 28th of September, 1874, and sailed on the 16th of November direct for Valparaiso, and arrived at Bay of Conception, Chili, on the 26th January, 1875; on the 22d March she was at anchor in the harbor of Talcahuana, Chili; on the 17th April, at Valparaiso, where she remained until May 8, sailing on that day for Coquimbo; on the 31st May at Caldera, Chili;

on the 4th June sailed for Iquique, Peru, arriving on the 10th; at Arica, Peru, on the 13th; Callao on the 25th June; on the 9th August, 1875, Rear-Admiral Napoleon Collins died, and was succeeded in command by Rear-Admiral Reed Werden, who hoisted his flag on the 25th September, at Panama; sailed for Callao on the 25th October.

Omaha, 12 guns, left Callao on the 10th October, 1874, bound to Valparaiso direct. She sailed from Valparaiso on the 4th February, 1875, for Talcahuana, Chili, where she arrived on the 13th, remaining at anchor until the 11th March, when she sailed for Valparaiso. On the 9th April she was at Mejillones de Bolivia, on her way to the northward; at Arica, Peru, on the 18th; at Molenda, Peru, on the 30th; on the 10th May at Pisco, Peru; on the 25th June sailed for Panama; at Panama on the 25th October.

The Onward has been stationed during the past year at Callao, as store-ship for the South Pacific station.

ASIATIC STATION.

The force on this station, under the command of Rear-Admiral A. M. Pennock, consisted of the Hartford, (flag-ship,) 18 guns; Monocacy, 6 guns; Saco, 3 guns; Lackawanna, 10 guns; Palos, 6 guns; Yantic, 3 guns; Kearsarge, 6 guns; and the Ashuelot, 6 guns. The Hartford was ordered home in June, 1875, Rear-Admiral A. M. Pennock, in anticipation of the arrival of Rear-Admiral William Reynolds, in his flag-ship Tennessee, 23 guns.

The movements of the vessels on this station since the latter part of the year 1874 have been as follows:

The Hartford left Nagasaki on the 21st of October, 1874, arriving at Shanghai on the 23d. February 9, 1875, left Woosung, the anchorage for Shanghai, and arrived at Hong-Kong February 14; sailed from Hong-Kong, March 13, for Whampoa, where she remained ten days. Left Whampoa on the 25th of March, and arrived at Hong-Kong March 26, 1875. June 16, 1875, sailed for Singapore, and from thence to the United States, via Suez Canal. June, 1875, Rear-Admiral Pennock left Yokahama to return to the United States, leaving Commander R. F. R. Lewis, as senior officer, in command of station. The Hartford visited Tripoli, on her return, where she remained from the 17th to the 28th of August, to inquire in regard to reported insults to the American consul. She arrived at New York, October 23, and was put out of commission October 29, 1875.

Rear-Admiral William Reynolds, having been ordered to relieve Rear-Admiral Pennock, hoisted his flag on board the Tennessee June 17th, 1875, and left New York June 26; arrived at Gibraltar July 13; left July 29, and arrived at Palermo August 1; sailed from Palermo on the 7th of August, and arrived at Port Said, Egypt, August 12; left Port Said August 14; passed canal easily, and arrived at Suez August 15; and, being within the limits of the Asiatic station, Admiral Reynolds assumed command thereof; left Suez August 21, and arrived at Aden August 26; left Aden August 28, and arrived at Bombay September 4; filled up with coal to leave September 11 for Colombo, Ceylon, and thence to Pulo Penang, and to Singapore; arrived at Colombo September 15, and Penang September 26, six days from Colombo.

The Monocacy finished repairs, September 4, 1874, and sailed November 10, for Hankow, arriving at Chin-Kiang on November 12, where she remained 2 days, at Nanking on the 15th, Kinkiang on the 20th; re-

mained there three days, and reached Hankow November 25; left Hankow December 29, and arrived at Shanghai January 2, 1875; remained there a week and then went to Nagasaki, Yokahama, and Kobe. She remained on the coast of Japan until the typhoon season was over and then sailed for Tien-tsin, China.

The Saco sailed from Shanghai November 28, 1874, for Amoy and Hong-Kong; from Hong-Kong, made a cruise westward to search for the wreck of the Pacific mail steamship Japan; then visited the west coast of Sumatra and Pulo Penang, which latter port she left February 20, 1875; arrived off Acheim Head February 22, and proceeded thence to Qualla Battoo, Soe-soe, Mukkie Pading, and Batavia, arriving at the last-named place March 6; left Batavia March 22, and arrived at Singapore March 26; after remaining there two weeks, sailed April 8 for Borneo, Manila, and Hong-Kong, arriving at last-named port May 3. On the 13th, left Hong-Kong, to cruise on the coast of China to Turnabout Point, thence to Nagasaki, Kobe, and Yokahama, at which last-named place Admiral Pennock temporarily hoisted his flag to her, June 22; arrived at Yokahama in October.

The Lackawanna sailed from Yokahama for San Francisco March 10, 1875; arrived at Mare's Island April 23, and went out of commission May 18, 1875.

The Palos left Chefoo November 8, 1874; reached Tien-tsin November 11, 1874; left Tien-tsin March 29, 1875, for Shanghai, arriving there April 9, and was put under returns of October 5, at that port.

The Yantic, from Hong-Kong, made a cruise in search of the Pacific mail steamship Japan, returning December 22, 1874; left Hong-Kong March 15, 1875, for target-practice, and returned on the 16th; left again May 11, to protect parties engaged in recovering treasures from the wreck of the Pacific mail steamship Japan from pirates; September 1, at Yokahama, undergoing repairs.

The Kearsarge left Vladoistich December 16, 1874, with the transit-of-Venus party on board, for Nagasaki. After landing the party she proceeded to Shanghai, thence to Hong-Kong; sailed March 13, 1875, for Manila, where she arrived on March 18; left Manila March 29, and arrived at Hong-Kong April 3; sailed April 6 for Canton, where she remained until April 21, and then returned to Hong-Kong; May 1 sailed for Nagasaki, Kobe, and Yokahama; August 19 sailed for the north coast of China; was reported at Chefoo in October.

The Ashuelot landed Professor Watson and party at Tien-tsin, and proceeded to Ninghai, Nienchwang, Tang-chang-foo, and Chefow, leaving the latter port November 2, 1874, and arrived at Shanghai November 6; left Shanghai December 8 for Nagasaki; August, 1875, cruised in the vicinity of Ningpo Foochow, and proceeded thence to the locality of the wreck of the late Pacific mail steamship Japan, to protect parties engaged in recovering treasure from pirates.

APPENDIX.

* * * * * * *

NAVAL ACADEMY.

UNITED STATES NAVAL ACADEMY,
Annapolis, Md., November 17, 1875.

SIR: I have already had the honor to submit the very satisfactory report of the practice-cruise of the cadet-midshipmen in the Constellation, under the command of Commander Edward Terry, commandant of

cadets, and of the cadet-engineers, in the Alert, under the command of Commander W. T. Sampson, head of the department of physics and chemistry.

The usual course of studies has been pursued satisfactorily, and the professors and officers under my command have been able, and devoted to their duty.

I beg to submit the following recommendations, and I cannot urge them too strongly:

1st. That the system pursued at West Point, of appointing cadets at least one year before they shall present themselves for admission, be adopted at the Naval Academy.

2d. That Congress be moved to make the necessary appropriation to build an additional wing to the new cadet quarters, so that the cadets may be quartered under one roof, to the great benefit of their discipline, their health, and the economy of the administration of the school.

I am, sir, very respectfully, your obedient servant,

C. R. P. RODGERS,
Rear-Admiral and Superintendent.

Hon. GEORGE M. ROBESON,
Secretary of the Navy, Washington, D. C.

REPORTS OF PRACTICE-CRUISE.

UNITED STATES STEAMSHIP CONSTELLATION, (3d rate,)
Annapolis, Md., September 18, 1875.

ADMIRAL: I have the honor to submit the following report of the practice-cruise of this vessel during the past summer, and to inclose reports of the professional aptitude and attention to duty of the cadets on board.

I assumed command of the Constellation, on her arrival at Annapolis, June 7, and on the 22d of the same month the cadet-midshipmen who were to make the cruise embarked. The following day the ship crossed the bar and anchored in the outer roads. The cadets were stationed in the watch and station bills with the crew, first-class men having its numbers of seamen, and the third-class men those of ordinary seamen.

On June 26 your flag was transferred from the Santee, and we weighed and stood down the bay, having on board thirty-nine cadet-midshipmen of the first class and one of the second class, and thirty-eight of the third class.

The following officers were attached to the ship: Lieut.-Commander C. M. Chester, as executive; Lieut.-Commander S. H. Baker, navigator; lieutenants, C. S. Sperry, S. A. Simons, E. P. Wood, C. C. Cornwall, R. P. Rodgers, and J. B. Briggs; chaplain, J. R. Matthews; paymaster, Edward May; surgeon, T. N. Penrose; assistant surgeon, J. C. Boyd; boatswain, Andrew Milne; gunner, Robert Sommers. Lieutenant Rodgers was assigned instructor in navigation, and the sections of the third class in seamanship were in charge of the watch officers, and were alternated each month.

Off Cape Henry, on June 30, you transferred your flag to the Alert and we sailed for New Bedford, arriving July 4. From that date until the end of our cruise we confined our exercising mostly to Buzzard's Bay.

Cadet-Midshipman Gilmore, of the first class, joined the ship from sick-leave, July 17, and on August 1, Cadet-Midshipman Braunersreuther,

of the first class, and twelve cadets of the third class, also reported for duty.

On the 18th of August we anchored in Newport harbor, returning to Buzzard's Bay on the 26th.

September 1, we sailed for the Chesapeake, arriving off the capes the evening of the 4th.

On the 9th I received orders to discharge stores and ammunition at Norfolk, and being unable to procure a tug and lighter from the yard to come to the roads, I was obliged to take the ship to the city.

In obedience to instructions received from you, I proceeded to Annapolis as soon after as possible, anchoring in the outer roads September 15.

During the cruise a weekly detail has been made, from the first class, of midshipmen of the forecastle, quarter-deck, and tops, and mates of decks and hull; and with all hands called, and a midshipman in charge of the deck, a detail for gangways, forecastle, and quarter-deck.

The gentlemen of this class have had, I believe, unusual opportunities in charge of the deck for working ship and performing the various evolutions known to seamen.

The opportunities have been mainly owing to the character of our cruising-ground and the prevalence of suitable weather for our work.

In navigation the first-class men have been instructed in the various methods of determining the position of a ship at sea, and have performed the following work, using their own observations in every case, viz: Latitude and longitude by dead reckoning; course and distance made good; bearing and distance of port; current; longitude, by time-sights, of sun, moon, and star; latitude by meridian altitude of same, by observation of sun off the meridian, by three different methods, and by altitude of * Polaris; determination of deviation by azimuth and by amplitude of sun; determination of time of high-water and of sunset; of ship's position by Sumner's method and by cross-bearings. They have also filled in the coast-line between Cape Hatteras and Cape Cod on skeleton charts, and have constructed a Mercator's chart of Buzzard's Bay and Vineyard Sound.

They have plotted the ship's track on the coast-chart, and have measured linear distances. Scale sketches have been made by them from our various anchorages, and descriptions written in their sketch-books.

The third class have kept seamanship note-books, in which they have described, and illustrated by drawings, the fitting and lead of all the rigging of this ship.

They have been taught to heave the log, get a cast of the lead, and steer, and have had frequent exercise aloft. Examinations in seamanship were held to test their progress.

About fifteen of this class, who have shown the most aptitude, have determined the ship's position by dead reckoning, and have also found the latitude by meridian altitude of the sun, and longitude by time-sight of same.

While your flag was flying on board this ship in Buzzard's Bay, the first class was sent on board the Alert, while fires were hauled to examine her engines; and again, while she was under steam in the bay, to witness their working. Subsequently, the same class went on board of her to work her under sail.

While at Newport, through the kindness of Captain Breese, during a portion of two days, the cadets of the first class were shown about the station, and as much information imparted to them as time would per-

mit. They were afterward required to make notes concerning their visit. The third class also visited the torpedo station.

In order that the cadets should have as much recreation as possible, they were generally allowed to visit the shore on Saturdays and Sundays. They were also given liberty at New Bedford and Newport during the week that the ship lay at each place.

All those who were deserving, and who desired leave to visit their relatives or friends, were granted it for one week, either at the North or at Hampton Roads.

The general conduct of the cadets has been very good.

The officers charged with the instruction of the cadets have all appeared to take interest in their work, and I believe they have obtained excellent results.

With reference to the discipline and general condition of this vessel, I think I need but call your attention to what you yourself saw during your stay on board, both in the Chesapeake and in Buzzard's Bay, and to add that to Mr. Chester, the executive officer, is entirely due all credit for the same.

The fitting of the ship at Norfolk was all that could be desired.

I am, very respectfully, your obedient servant,

EDWD. TERRY,
Commander, Commanding.

Rear-Admiral C. R. P. RODGERS, U. S. N.,
Superintendent United States Naval Academy.

UNITED STATES STEAMER ALERT, (3d rate,)
UNITED STATES NAVY-YARD, BOSTON, MASS.,
September 6, 1875.

SIR: In obedience to your order, I submit the following detailed report of the practice cruise of the cadet engineers embarked on board this ship:

The seventeen cadets composing the third class of cadet engineers were embarked at the academy on the afternoon of the 22d of June. All their mess arrangements had been previously perfected. N. Lowe, a Japanese student who had joined the ship in Philadelphia, was messed with the cadets, and given the same instructions and privileges as long as he remained on board.

Passed Assistant Engineer Borthwick and Assistant Engineer Rae, detailed as instructors for the cruise, immediately took charge of the instruction of the cadets and divided them into four watches, at stations in the engine and fire rooms. As the class had had no previous instruction in steam-engineering, except in the drawing-room, the instruction was slow at first. Each student has been required to keep a rough note and sketch book in which notes and sketches were made, on the spot, of all points of interest. The rough notes have been carefully rewritten in their journals, and from the rough sketches careful drawings made in their sketch-books. These journals and sketch-books have been inspected after each day's work by the instructors, and weekly by the commanding officer.

The general plan of instruction has been to familiarize the cadets with the construction, care, and management of the engines of this ship. This has been accomplished by requiring them to make sketches of all the steam and water pipes, together with different parts of the engines and pumps. They have been constantly on watch with their instructors

whenever the ship has been under steam. Their stations have been frequently changed in order that each might have an opportunity to learn all the duties required of those in care of the engines. One has always been detailed to keep the steam-log.

At each port visited during the cruise, the cadets have visited all the shops and yards of professional interest, in company with their instructors, who guided their observations, explained everything of interest, and indicated what parts of machinery, &c., each was to sketch. These visits to shops on shore have been made during four or five days of the week, each visit being four or five hours long. The remainder of the time has been devoted to writing up their journals and making their drawings. Every Saturday, as far as practicable, has been given for recreation.

We sailed from Annapolis Harbor on June 28, reached Norfolk on the 29th, having been a portion of the previous day in company with the flag-ship Constellation. Sailed from Norfolk on the 29th to rejoin the Constellation. Accompanied the Constellation out to sea, and then received on board the commanding officer of the squadron, Rear-Admiral C. R. P. Rodgers, United States Navy. Returned to Norfolk with the admiral on board. Remained at Norfolk till the evening of July 3. During this time the cadets visited the machine-shops, drawing-room, &c., of the yard. They had an opportunity to examine the compound engines which were being built for the Galena, and to visit the Huron, whose engines are similar to those of this ship. Anchored in Wilmington Creek on the evening of July 4.

Wilmington, Del., July 4–8.—Visited the works of Harlan & Hollingsworth, where every attention was shown the cadets. The steamship Brashear, the monitor Amphitrite, and the machine-shop, drawing-room, and dry-dock were thoroughly explained. Visited the works of Pusey, Jones & Co., the Lobdell Car-Wheel Works, where everything was explained by Mr. Lobdell and his son; also the works of I. M. Morton & Co. Visited the iron-works of Slidell & Hastings, the machine-shop of Hilles & Jones, and the car-works of the Jackson & Sharp Company. At the latter place Mr. Anchincloss, the vice-president of the company, showed us every attention. Got under way for Edgemoor at high water 8th of July, and came to anchor same evening. Visited here the works of Messrs. Sellers & Garrett. Witnessed the forging of the eyes of the anchor-links of the East River bridge, riveting by hydraulic pressure, and the mechanical puddler, an invention of Mr. Sellers. Left Edgemoor same evening for Chester, and came to anchor soon after.

The yard of John Roach & Co. was visited at this place, where we were kindly received. The engines of the Pacific Mail Steamship Company's steamers City of San Francisco and City of New York were inspected and explained with all particulars. The Ranger, a sister ship of the Alert, was also visited and close attention paid to her machinery. Mr. Woodbridge, the chief draughtsman, kindly placed all the drawings at our disposition, and tracings were made of the most important. Visited the Chester Rolling-Mills, where a Siemans furnace was explained to the cadets. Got under way at 10 a. m. and reached Philadelphia at 11.30 a. m. 13th.

July 14–20.—Visited the works of I. P. Norris & Co. and William Cramp & Son. At the former place were shown everything of interest, and in the drawing-room had the drawings of the Lynn water-works engine explained by Mr. E. D. Leavitt. At the latter place were shown everything in the shops, including a steam-steering gear of very simple and perfect construction. Visited all the shops in the navy-yard, the

works of Neafie & Levy, the rolling-mills of Marshall, Ellert & Co., Michell & Verse, and Rowland & Co., and also the saw-works of the American Saw Company, the Baldwin Locomotive Works, and the tool-works of William Sellers & Co., and the Government works at League Island, in all of which places valuable information was obtained. Got under way for New York 20th.

New York, July 21 to August 4.—Arrived off navy-yard, New York, July 21. Visited the shops in the yard, the torpedo-boat Intrepid, and the dry-dock pumping-engines. Explained the oil-testing machine. In the draughting-room many tracings were made of the machinery of compound engines. Visited the Chrome Steel Works in Williamsburgh, where we were very kindly received by the officers of the company and the process of manufacture of chrome steel fully explained. Next visited the Hydraulic Works of H. R. Worthington & Co.; were taken through the entire works and explained the process of the construction of a pumping-engine from its inception, through the drawing-room, the pattern-shop, the foundery, the machine-shop, and the erecting-shop, to its completion. The peculiarities of the duplex system were discussed and explained by Mr. Worthington, who personally accompanied the cadets through the works. Visited the Morgan Iron Works, John Roach & Son, where the process of building up and forging large shafts was seen. The engines of the Trenton and of the Pacific Mail steamers being constructed at Chester were seen. Visited the Delamater Iron-Works, where the subject of sweeping up screw-propellers was explained, being the first opportunity presented during the cruise of witnessing the operation. Many sketches were made in the draughting-room at the navy-yard, and all the vessels in ordinary were visited and examined.

July 24.—Rear-Admiral Rodgers came on board and hoisted his flag.

August 4, 5.—Left New York 4th August with Rear-Admiral Rodgers on board; arrived at Narragansett Pier August 5th; left Narragansett Pier same day, and came to anchor off Newport, R. I., at 4.55 p. m., on account of the fog.

Rocky Point, Narragansett Bay, August 6, 7.—August 6, left Newport and came to anchor off Rocky Point at 11.30 a. m., this being the place most convenient to Providence. At 12 m. took steamer for Providence, where we visited the works of the American Screw Company, and were kindly received and shown everything of interest. Visited the Corliss Engine Works, and were kindly received by Mr. Corliss, who took the cadets through the works, explaining everything. Visited the Providence Tool Company's Works, and witnessed the manufacture of the Henry-Martin rifles being made by this company for the Turkish government. Got under way on the evening of the 7th, and steamed to Newport.

Newport, August 8–12.—Visited the torpedo station, where the manufacture of nitro-glycerine, the filling of torpedoes and the different kinds of fuses were explained by Lieut. A. V. Wadhams, of the Alert. Professor Fairner explained the use of all the apparatus in the electrical department with several practical illustrations. Lieutenant Converse explained both the Lay and Ericsson torpedoes.

New Bedford, August 12–18.—Got under way on the morning of the 12th August. Stopped at Narragansett Pier to receive on board Rear-Admiral C. R. P. Rodgers, commanding practice squadron. Fell in with Constellation same afternoon. Rear-Admiral Rodgers shifted his flag to the Constellation. Came to anchor at 4 p. m. in New Bedford Harbor. Visited the Reading Coal Company's wharves. Examined, explained and made sketches of the pockets.

August 1.—First class midshipmen from the Constellation came on board and received instruction in the engineer department. August 16, first class midshipmen came on board again and received instructions during the steam trial. 17th, first class midshipmen came on board and worked ship under sail. At 5 a. m. 18th, got under way for Boston.

Boston, August 19 *to September* 6.—Arrived off navy-yard at 10 a. m., August 19. Visited the works of the South Boston Iron Company, where Mr. Wiard's operations in rifling smooth-bore guns are being conducted. Visited the Norway Iron Works, where spring-steel is manufactured. A Siemens furnace was in operation at these works. Visited the Bay State Iron Company's Works and the works of Harrison, Loring & Co. Visited the Atlantic Works in East Boston, the East Boston Forge Company, where we were kindly received, and witnessed some good forging. Next visited the American Steam-Gauge Company's shops in Boston, where the manufacture, including graduation, of steam and vacuum gauges was fully explained. Visited the machine-shops of both the ordnance and engineer departments in the navy-yard, and all the vessels in ordinary. Instruction in shops concluded September 1. In accordance with instructions, those cadets who could avail themselves of it, were granted leave, with orders to report at the Academy on the 18th of September. The remaining five cadets, with their servants, were sent to the Academy by Baltimore steamer, in charge of Lieutenant Wadhams, on September 4.

In conclusion, I have to report that the conduct of the cadets during the cruise has been excellent. Considering their very scanty professional preparation for the cruise, they have made good use of their opportunities. The Alert has well answered the purpose of the cruise. The cadets' quarters are large, light, and airy, to which, in part at least, their unbroken good health may be attributed. The ship having the most recent style of engines and boilers, the cadets have had ample opportunities to see their good as well as bad points. It has been my aim to maintain the ship in a good state of order and discipline, to the end that the first impression of the cadets of their life afloat may be correct. In this I have been well supported by the executive officer, Lieutenant-Commander Heyerman. I respectfully recommend that in future the cruise be limited to a smaller number of ports. Workshops constructed for the same kind of work are very much alike, as are also the methods of working. I therefore think that it would be more profitable to the cadets to study into the machinery and methods of one first-class shop, than to visit several of the same kind in the time allowed. My experience enables me to recommend without hesitation the ports of Wilmington, Chester, Philadelphia, and New York.

The shops, founderies, docks, ships, &c., in and about these four ports will furnish a field for study sufficient to occupy the cadets for a much longer time than they have to devote to it. A visit to other ports would only be to repeat what they could see in those mentioned.

Passed Assistant Engineer Borthwick and Assistant Engineer Rae have been careful and zealous in their instruction.

Herewith is a tabulated report of the professional aptitude, attention to duty, deportment, &c., of each cadet.

Respectfully, your obedient servant,

W. T. SAMPSON,
Commander, commanding Practice Steamer Alert.

Rear-Admiral C. R. P. RODGERS, U. S. N.,
Superintendent Naval Academy.

REPORT OF BOARD OF VISITORS.

UNITED STATES NAVAL ACADEMY,
June 21, 1875.

SIR: The undersigned members of the Board of Visitors appointed to attend the annual examination at this Academy, for the year 1875, to witness the examination of the several classes, and to inquire into the state of discipline and general management of the institution, have the honor to make the following report:

The board convened on the morning of June 10th instant, and at once organized, by the election of Commodore Foxhall A. Parker, United States Navy, as president, and Brig. Gen. E. O. C. Ord, United States Army, as vice-president. Assistant Professor W. W. Fay, of the Academy, reported for duty as secretary of the board. All the members of the board were present save Senators Simon Cameron and John B. Gordon, who communicated through Admiral C. R. P. Rodgers, Superintendent of the Academy, their regrets at being unable to attend the meetings of the board at any time during its session.

To facilitate the proper performance of its duties, the board appointed committees from its members; invited the Superintendent to be present, at his pleasure, during its meetings; and, through the Superintendent, requested the heads of the several departments of the Academy to make such written suggestions to the board as their experience would point out as of service to the interests of the Academy.

All necessary assistance and information have been given to the board in the pursuit of its inquiries, both upon the part of the Superintendent and of all the officers of the Academy; and the board takes pleasure in here recording its recognition of the uniform courtesy and kindness which its members have received from every one connected with the Academy with whom they have come in contact.

The board heartily concurs in the opinion of the late board of visitors that the general efficiency of the Academy, its methods of teaching, the high state of its discipline, the advanced moral tone and unvarying culture and gentlemanly bearing of both the officers and cadets, reflect great honor, alike upon its administration, the Navy, and the country.

No general depreciative criticism can be successfully made upon this institution, and anything herein contained looking to a change in the affairs of the Academy should be taken, as the board indeed intends, rather as suggestions still further to widen the area of its efficiency and usefulness, than as hostile criticisms upon its present condition.

With these preliminary observations, the board has the honor to submit its conclusions and recommendations upon such topics as have severally suggested themselves in the course of its official inquiries.

1.—GROUNDS, BUILDINGS, AND SANITARY CONDITION OF THE ACADEMY.

The beauty and high degree of culture and taste shown in the grounds of the Academy are too well known to need comment, and upon this subject the board has only to concur in the recommendation of former boards, that the Government, in order to unite the several properties here, purchase the small tract of land intervening between the Academy grounds and the creek to the north of the same. The desirability of such action is too obvious to need argument for its support.

In general terms the quarters and buildings of the Academy, including the workshops and recitation-rooms, are in good repair, and properly adapted to their several uses; but upon this subject, after careful examination and inquiry, the board has some remarks and suggestions to make deemed important.

After the expiration of the present academic year there will be need of larger workshops for the classes of cadets in the department of steam-engineering, and plans for the necessary change have been made and are now in the possession of the Navy Department.

The building used by the department of physics and chemistry was formerly an old storehouse, and is inadequate to the wants of this very important department.

There should also be increased facilities for work in practical chemistry. The board has observed with surprise that the seats and desks in the recitation-halls are of an antique type, uncomfortable, and not equal even to those now in use in most of the common schools of the country.

New and modern seats and desks would greatly contribute to the comfort and health of the cadets in pursuing their work. Upon the particular topic of quarters, the board observes that the new building is not sufficiently commodious to accommodate all the cadets. The division of quarters, as it now exists, requires a double organization of guards, watchmen, &c., and two formations for every duty of the battalion, thus increasing expense, and tending to mar the efficiency of discipline.

The present arrangement has the additional disadvantage of causing the cadets of the fourth class to be quartered together, and thus to lose the influence of those of the other more advanced classes.

The board recommends that the new building should be sufficiently enlarged to quarter the entire body of cadets. The ventilation of the new quarters is defective, especially that of the lower halls, in which in winter, and in inclement weather, it is necessary to make the sectional formations.

The room for drawing, at the top of this building, is almost entirely without ventilation. The basement of the same building is now used in part for a laundry. This increases the danger of fire, and occupies room which might be used to advantage for other purposes necessary to be pursued in the building. The board would recommend, as important, the provision of a separate building for laundry.

The old quarters now occupied by the fourth class are much out of repair, and with little expense in addition to the repairs essential, could probably be made fit for other purposes of the academy.

The present armory is a mere shell, and inadequate to the purposes for which it is used.

The various repairs and improvements herein recommended will, of course, require the action of Congress, and the board, through your Department, desires to recommend such legislation in the premises as the wisdom of that body may suggest.

The board would here remark that, while making its inspection of the new quarters, it carefully examined into the kind, quality, and cooking of the food furnished the cadets, and is clear in its opinion that in all these respects the efficient management of Colonel Swann, the commissary of the academy, has left nothing to be desired; but that this department of the administration of affairs is most successfully served. The sanitary condition of the academy is good, the hospital having no inmates, and the general health of the cadets is excellent.

The board suppose that no hardier or more healthy-looking body of young men than that of the cadets of this academy can be found in the country.

2.—ADMINISTRATION AND POLICE.

Under this head the board have only to express the pleasure it has experienced in observing the high state of discipline preserved by this

academy under the intelligent management of its distinguished superintendent, Rear Admiral C. R. P. Rodgers, and his able corps of assistants; a discipline, in the opinion of the board, attained, not by the rigorous exercise of authority alone, but by kindness united with firmness. In this respect the academy has not only stood fast upon the ancient ways, but has perhaps enlarged and improved them.

A pleasing phase of the life of the cadets here, as observed by the board, is found in the advantages of social improvements extended to the cadets in visiting the families of their instructors, without the formality of special invitations or permission. The importance of such opportunity, if properly used, in forming the manners and character of the young officers cannot be too highly estimated.

3.—FINANCE AND LIBRARY.

With regard to the method of keeping the accounts and furnishing the supplies of whatever nature necessary for the cadets, both as to the quality of the goods and the cost at which they are sold, the admirable system in use at the academy seems to leave nothing to be desired.

The library is large, well selected and arranged, and easy of access to all who may desire to avail themselves of its use. Such appropriations as are necessary should be annually made for the purchase of additional books.

4.—STUDIES AND PRACTICAL EXERCISES.

The board as a whole, or through its committees, has attended all the oral examinations; has inspected many of the written papers of the cadets; and has witnessed, with much interest, the drills in the handling of sails and spars; the evolutions of the fleet of boats; the drill at the great guns and target practice; in boarding and repelling boarders; the maneuvers of the battalion as infantry, and with the howitzer batteries; also an exercise in signaling. Its observation of these things has fully proved to the satisfaction of the board that the system of teaching pursued at the academy, combining theory and instruction by the professors and from books, with constant practical work in the various arts and sciences taught, is fitted to achieve the highest results and deserves especial commendation.

The cadets in their examination showed that they were not taught by rote simply, but had thoroughly learned the principles underlying the several departments and branches of their studies; and the promptness and skill, and thoroughness with which they went through the difficult drills spoken of, called forth the constant admiration of the board. The results obtained by the methods of teaching here employed were thus crystallized and plainly seen, and in the opinion of the board, bear sure witness to the success of the Academy as a training-school for well instructed naval officers.

MISCELLANEOUS OBSERVATIONS.

In rendering their report of the result of their inspection of the administration and affairs of the Naval academy, the board desires to present for the information of your Department and of Congress some additional suggestions which they deserve worthy of consideration.

The course of study now pursued at the academy seems to be crowded, so that some things essential to a well-rounded education are necessarily omitted therefrom, solely for want of time. For instance, no formal instruction is given in ethics, and the courses in English composition, rhetoric, history, and literature, and in constitutional law is very limited No instruction is given in the methods, jurisdiction, or procedure of

naval commissions of inquiry or courts-martial. A less crowded course would also admit of such general instruction, by lecture and otherwise, in natural history, geology, and botany, as would prepare officers of the Navy to observe and collect valuable information upon these subjects from all parts of the world.

The course in mathematics during the first year would seem to be very severe, and the necessity for more thorough preparatory training, or the introduction of some elementary instruction in this branch, is obvious.

It is a matter of deep regret that so large a number of those appointed to the academy fail either in passing the preliminary examination, or during the course of the first year. Out of one hundred and five candidates who presented themselves for admission to the academy as cadet-midshipmen in the year 1874, fifty-two were rejected at the preliminary examination, and, of thirty who have been examined this year, five have failed upon the physical examination alone.

The mortification and expense involved by rejection—for the last-named cause may well be avoided if the candidates were subjected to a thorough physical examination by competent surgeons before leaving their homes—and, in the opinion of the board, the evil of rejection for other causes would be much lessened if, by law, appointments to the academy were required to be made one year in advance, and the candidates for admission to the academy, after passing the physical examination, and before their further examination at the expense of the Government, were authorized to receive instruction and make recitations in the rudimentary mathematics in which they were to be examined, for a limited period before such examination, in order to clearly develop their aptitude and capacity for the course of study to be pursued in the academy. It is clear, however, that this subject should receive the careful consideration of Congress, and to that body this board, having closed its duties, remits it in the confident hope that such legislation may be had as will hereafter still further promote and develop the efficiency of the Navy of the United States, whose gallantry, culture, and discipline have, in the past, illumined the name of the Republic upon every sea where its flag has floated.

All of which is respectfully submitted.

FOXHALL A. PARKER,
Commodore and President of the Board.
E. O. C. ORD,
Brig. Gen. U. S. A., Vice President of the Board.
O. H. TIFFANY, D. D., Illinois.
WM. E. POTTER, New Jersey.
ALEX. M. GOW, Indiana,
Supt. of Public Schools, Evansville.
E. S. CARR, Oakland, Cal.
JNO. G. JAMES, Texas,
Supt. Tex. Mil. Inst., Austin.
ROBT. PETTIT, U. S. N.,
Pay Director.
ALEXANDER HENDERSON,
Chief Engineer, U. S. Navy.
GEO. E. BELKNAP, U. S. N.,
Captain.

Attest:
W. W. FAY,
Assistant Professor, Secretary Board of Visitors.

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BUREAU OF YARDS AND DOCKS.

BUREAU OF YARDS AND DOCKS, NAVY DEPARTMENT,
Washington, D. C., September 29, 1875.

SIR: I have the honor to submit the annual report of the Bureau of Yards and Docks for the fiscal year ending June 30, 1875, together with estimates for improvements and repairs for the fiscal year ending June 30, 1877.

KITTERY NAVY-YARD.

At this navy-yard little could be done beyond making the repairs necessary to prevent the dock and buildings from falling into decay. The allotment to the yard has been economically and satisfactorily expended.

BOSTON NAVY-YARD.

The buildings and docks at this yard have been repaired so far as the moderate allotment would permit. Your attention is respectfully called to the estimates for a boundary-wall, a necessary protection against fire, for a wet timber-basin, and for workshops for this Bureau—improvements much needed.

NEW LONDON NAVAL STATION.

A board of civil engineers has prepared an elaborate plan for a navy-yard at this site. Should it be contemplated to press the work at this station to completion, large appropriations will be necessary. The work already completed has been well and economically done. A second storehouse has been finished, an inexpensive dwelling-house for the civil engineer erected, and the wharf-facilities have been enlarged and improved. Grading has been carried on with reasonable speed and economy.

NEW YORK NAVY-YARD.

I beg leave to renew the recommendation that this important navy-yard be preserved in its territorial integrity. In the near future, every available foot of ground within its walls will be needed for wet-docks, timber-sheds, workshops, and other public buildings. The importance of a liberal appropriation for the improvement of the cob-dock is made more manifest each year.

PHILADELPHIA NAVY-YARD.

The work of transferring the plant from this navy-yard to League Island has been carried on as rapidly as circumstances would permit.

LEAGUE ISLAND.

At this naval station the iron-plating shop has been finished, the foundations for an extensive steam-engineering building have been laid, and the brick-work of the walls commenced. Owing to the small appropriation for this station, little "filling-in" could be accomplished.

It is hoped that, with the fund inuring from the sale of the Philadelphia navy-yard, greater progress may be made during the ensuing year

A repairing-basin, in which vessels may lie during the winter, protected from the running ice of the river, and a substantial wharf, extending into deep water, are of prime necessity. It is possible to cover the island with workshops, but League Island as a building and repairing yard will be useless to the nation until a proper wharf, with facilities for lifting heavy weights, and a repairing-basin for the purpose indicated, shall have been completed.

The whole proceeds of the sale of the Philadelphia yard should, in my judgment, be made immediately available for this great undertaking. Crib-work, granite-laying, and excavations, once commenced, should, as a mere matter of economy, be as rapidly as possible carried to completion.

WASHINGTON NAVY-YARD.

The small amount allotted to this yard during the past year under the appropriation "repairs and preservation" has been judiciously expended, but was not sufficient to make all the repairs to the various buildings and wharves that a due regard to economy would dictate. The law of last Congress prohibited the expenditure of any portion of the appropriation for "repairs and preservation," 1875–'76, at this yard, and, as a consequence, a larger sum will be required to meet the expense for repairs during the next year.

NORFOLK NAVY-YARD.

Repairs have been gradually and economically made at this yard, which, from its geographical position and natural advantages, is an important naval station.

PENSACOLA NAVY-YARD.

Repairs to the dry-dock, basin, and workshops have been made at this yard, and a number of wooden buildings, used as hospitals and infected with fever from the epidemic of last year, have been torn down and burned. By the intelligent efforts of the present commandant of this station, it has been preserved from the recurrence of the epidemic during the past summer.

Two sections of the iron dry-dock will probably be completed within the next six months.

MARE ISLAND NAVY-YARD.

From a personal inspection of the Mare Island navy-yard, I am able to state that the work upon the large granite dry-dock is progressing satisfactorily, and that the yard itself is in excellent condition. An appropriation for the commencement of a quay-wall along the face of the yard is strongly recommended, and is becoming a necessity, in order to preserve the channel from gradually filling up, and to moderate the expense of constant dredging. The best means of supplying this navy-yard with water are under consideration; the report of the commandant upon the subject is daily expected.

I beg to recommend as a measure of undoubted economy that an appropriation be asked from Congress for the building of three inexpensive wooden workshops, and a landing-wharf, at some point near Port Royal, S. C., where a suitable site can be obtained. When our vessels are driven from Key West by yellow fever, Port Royal is the nearest and safest harbor of refuge. With workshops and the necessary tools, the artisans from the vessels of the squadron should be able to make

all minor necessary repairs, all repairs which do not involve the necessity of docking the vessel; and the great expense of sending the vessels of the North Atlantic squadron to a dock-yard, would, in a measure, be avoided.

I entirely concur in the recommendation of my predecessor relative to the pressing need of a proper naval reformatory prison, to be located at one of our navy-yards; plans and specifications are already in possession of the Bureau, and I cannot too strongly urge the necessity of an appropriation for this humane reformatory measure.

I beg leave to state that, with the limited appropriations of the past two years, not only is it impracticable to improve the navy-yards and stations, but the actual necessary repairs to dry-docks, buildings, and workshops, railways and wharves, cannot be substantially accomplished. Temporarily patching up public works, when radical repairs are needed, is unwise economy, and I earnestly call your attention to the estimates submitted for placing the navy-yards in thorough working condition.

Report of expenditures at navy-yards, stations, and Naval Asylum for fiscal year ending June 30, 1875.

Yards and stations.	Appropriations.				
	Navy-yard or station.	General maintenance.	Civil establishment.	Contingent.	Totals.
Portsmouth, N. H.	$24,779 71	$70,907 40	$4,839 49	.....	$100,526 60
Boston, Mass.	115,078 36	110,303 09	6,458 85	$2,500 00	234,340 30
New London, Conn.	33,338 70	8,665 26	.....	.....	42,003 96
New York, N. Y.	92,638 02	140,321 18	6,661 47	.....	239,620 67
Philadelphia, Pa	25,952 91	46,337 77	6,449 41	7,962 68	86,702 77
League Island, Pa.	360,386 62	54,753 40	2,748 40	14,850 00	432,738 42
Washington, D. C.	30,168 93	82,229 21	5,070 12	3,291 95	120,760 21
Norfolk, Va	117,726 99	76,543 26	5,109 79	4,236 89	203,616 93
Pensacola, Fla.	79,361 49	53,750 30	2,007 50	5,618 15	140,737 44
Mare Island, Cal	307,876 24	102,387 85	6,247 05	.....	416,511 14
Sackett's Harbor, N. Y.	.....	1,015 72	.....	.....	1,015 72
New Orleans, La	.....	605 00	.....	.....	605 00
Key West, Fla	.....	170 00	.....	697 00	867 00
Naval Asylum, Pa.	69,970 35	.....	.....	.....	69,970 35
Total	1,257,278 32	747,989 44	45,592 08	39,156 67	2,090,016 51

Accompanying this report is an abstract of offers for supplies received for furnishing articles coming under the cognizance of the Bureau of Yards and Docks, made in conformity to the act of Congress approved March 3, 1843.

The following estimates for the fiscal year ending 30th June, 1877, are respectfully submitted:

Sheet No. 1.—For support of Bureau of Yards and Docks	$15,280
Sheet No. 2.—General maintenance of yards and stations and contingent	910,000
Sheet No. 3.—Support of Naval Asylum	58,177
Sheet No. 4.—Repairs and preservation	500,000
Sheet No. 5.—Improvements at navy-yards	1,225,000
Total estimates of Yards and Docks	2,708,457

I am, sir, very respectfully, your obedient servant,

J. C. HOWELL,
Chief of Bureau.

Hon. GEORGE M. ROBESON,
Secretary of the Navy.

BUREAU OF NAVIGATION.

NAVY DEPARTMENT, BUREAU OF NAVIGATION,
October 26, 1875.

SIR: I have the honor to submit the following report of the Bureau of Navigation for the past year, together with estimates for its support, and for the expenditures that will probably be required in that division of the naval service committed to its immediate charge for the fiscal year ending June 30, 1877. Included in this report, and transmitted herewith, are the reports and estimates of the several offices under its cognizance.

NAVIGATION.

Compasses and compass-stations.—For years past, this Bureau has promoted, as far as possible, the construction of marine compasses known as "liquid;" it is supposed that those now in use are inferior to none; for this purpose a compass-observatory has been built, and supplied with the proper testing-instruments, at Brookline, near the manufactory which supplies compasses for the Navy.

The use of compass-stations, designed for making tables of local deviation for our vessels-of-war, is supposed to be objectionable, rather than advantageous; the operation of making the tables is usually slow, wanting in accuracy, and, when completed, leaves the supposition that, without compass-stations, deviation-tables could not well be made.

Publications on this subject have been made, tables calculated, &c., and there is no reason why every vessel-of-war should not make a new table whenever a considerable geographical change has been made.

The appended report of Prof. B. F. Greene, United States Navy, who is charged with the superintendence of Navy compasses, treats of this important subject more fully.

During the past year, a considerable number of old dry compasses were disposed of at public auction, as no longer suitable for service; and the stock of Navy liquid compasses has been augmented by the purchase of a number of the most improved pattern.

In the allowance of other nautical instruments, no change has taken place, except that now a Laurent's night-octant is issued to every vessel fitting for sea, which instrument has proved useful.

Nautical charts and books.—The supply of these indispensable aids to navigation is being increased as the operations of the Hydrographic Office proceed in their preparation. Most of the charts and sailing-directions now used in the Navy are of Government manufacture.

Libraries.—Ship's libraries contain, besides strictly professional books, also such scientific, historical, law, and miscellaneous publications as are advantageous to naval officers for their service in all parts of the globe. The allowance of library-books is deemed liberal, considering the small appropriation made annually for the purpose. Recently, the Revised Statutes of the United States were added to ship's libraries, thus filling a want more or less seriously felt in the Navy for some time.

HYDROGRAPHY.

The work of geographically determining, to the nearest limit of error, as many points as are supposed necessary in Central America and in the West Indies, was prosecuted last year by the United States Steamer

Fortune, Lieutenant Commander F. M. Greene, and assistants. This work is now in progress; the Fortune being found unsuited, the Department has assigned the Gettysburg.

The longitudes of Panama, Aspinwall, Santiago de Cuba, and Havana, have been determined by means of the telegraph. It is proper to acknowledge the courtesy of the Cuba Submarine and the West India and Panama Telegraph Companies, which have without charge extended all the necessary facilities.

The work now in course of completion will include points on the Windward Islands and the northern coast of South America.

The survey of the outer coast of the peninsula of Lower California, and that of the Gulf of California, has been concluded by Commander George Dewey, commanding the Narragansett. The gulf was absolutely unsurveyed, but is now sufficiently examined and determined for the safety of navigation. The Bureau has the satisfaction of expressing its appreciation of what has been accomplished.

Commander A. T. Mahan, commanding the Wasp, has made much-needed surveys at the mouth of the Rio de la Plata.

Owing to no appropriations, the survey of the North Pacific Ocean has been abandoned; the work is so extensive that it would be a mere pretense if attempted without appropriations sufficient to purchase, or build by contract, a suitable steamer and two three-masted schooners to serve as assistants. The probable cost of a steamer and two schooners would be $170,000, for which an estimate has been submitted. Such vessels, once fitted out and employed upon their work, would entail little expense beyond that of cruisers, and in fact would serve that purpose most usefully among the islands visited by our own and other vessels, for cargoes of *beche-de-mer* and sandal-wood.

The survey of the North Pacific Ocean is a necessity; without it the loss of life and property will yearly increase; and as the ocean binds our coasts, it should be our pride, as it is our interest, to lessen the dangers of its navigation as much as possible.

It is respectfully recommended that, when a vessel can be spared for the purpose, from those employed on the North Pacific station, a running survey be made of the coast of Guatemala; this would render the surveys—of different values, however—continuous from Behring's Straits to Cape Horn. The report of the hydrographer, in this as in other matters, is worthy of your careful consideration.

Since completing the lines of deep-sea soundings in the Pacific Ocean for cable purposes, as mentioned in my last annual report, another line has been run by the United States steamer Tuscarora, under the command of Commander H. Erben, from San Francisco to the Sandwich Islands, and some soundings were also made on the return of the said vessel from the Navigator Islands to Honolulu.

Additional deep-sea soundings will soon be in progress as directed by you, between the Sandwich Islands, the coast of Australia, and New Zealand.

INTEROCEANIC SURVEYS.

This arduous work, which has been carefully prosecuted for five seasons by two or more parties, from the Isthmus of Tehuantepec to twenty or more miles south of the mouth of the Napipi on the river Atrato, is at length satisfactorily accomplished.

It is the duty of this Bureau to acknowledge the ability and energy of the different officers who have been in command, and the untiring zeal and intelligent and faithful exertions of their subordinates. The

precautions of those in command are shown in the fact that not one officer or man has succumbed to climatic influences, though doubtless many carried the seeds of disease and earlier death away from their fields of operation. No case of bad conduct, in either officer or man engaged on this work, has come to the knowledge of the Bureau.

The Tehuantepec survey in 1870–'71 was under the command of Capt. R. W. Shufeldt, U. S. N., assisted by naval officers and Civil Engineer E. A. Fuertes.

The survey of the Nicaraguan route was under command of Commander Charles S. Crosman, in 1872, who was unfortunately drowned on the bar of the San Juan River, on the 12th April, 1872. Commander Chester Hatfield, U. S. N., then assumed command, and prosecuted the work during the season. Commander E. P. Lull, U. S. N., who, as a subordinate, had been employed for two seasons on the surveys to the south and east, was placed in command, and executed a very satisfactory survey of this region, aided by young naval officers and by Civil Engineer A. G. Menocal, who also aided Commander Chester Hatfield the preceding season.

The survey of a long stretch of coast from the Isthmus of Panama to the extreme southern limit, on the Atrato, twenty miles or more above the mouth of that river, was under command of Commander T. O. Selfridge, U. S. N., during the years 1870–'71 and 1873, aided the first season by assistants from the United States Coast Survey, as well as by junior naval officers.

By tentative surveys, following in the main up the various valleys on both coasts, until reaching heights and distances apart that would make the different water-sheds between the points named inferior to other points already known, the process of elimination was completed. It was a long, laborious process, taxing the endurance of the officers and men.

Since my last report, at the request of the commission appointed to consider and report upon the interoceanic canal, by your order a careful survey of the Isthmus of Panama was made, the computations completed, and the whole placed before the commission. A reconnaissance on the west coast was also made of the Rio Chepo and the San Blas route, where the tide-waters of the two oceans approach more nearly than at any other point. This work was executed by Commander E. P. Lull, U. S. N., and junior naval officers, aided by Civil Engineer A. G. Menocal, U. S. N.

At the instance of Commander T. O. Selfridge, who had executed the former work on what is known as the Napipi route, the Department directed fitting out another expedition to make an actual location of an interoceanic canal along this line. This work was assigned to Lieut. F. Collins and junior naval officers. The work has been successfully accomplished, the computations made, and placed before the commission.

So careful and minute has been the examination of the different water-sheds up to the point of manifest inferiority to other known points, that no doubt now exists as to the approximate labor necessary in the construction of an interoceanic ship-canal at several points. It is proper to add, that the most careful and elaborate surveys would necessarily have to be made, in advance, at any point heretofore examined, before commencing the construction of an interoceanic ship-canal, and that these surveys could only ameliorate the labor and cost of construction, inasmuch as *the locations as given are actual throughout their length*, and would only be changed when an advantage would be gained by doing so.

NAVAL OBSERVATORY.

The report of the Superintendent of the Naval Observatory, herewith appended, presents the subjects under his charge so fully as to require no special notice of this Bureau.

NAUTICAL ALMANAC.

The report of the Superintendent of the Nautical Almanac will doubtless receive your approval. These publications are a necessity to the country, apart from the primary object, the necessary data for navigation. All institutions of learning, the Coast Survey, the surveyors of the Government, whether belonging to the Army or other departments, are supplied with the Nautical Almanac without charge.

SIGNAL-OFFICE.

From the report of the Chief Signal-Officer of the Navy it will be seen that an electric light has been purchased and experimented with, to ascertain its utility on board of men-of-war in certain contingencies. The experiments have not advanced enough to show whether or not the use of electric lights, in time of peace, will be of sufficient advantage to warrant the expense of supplying our vessels-of-war with them, while their utility in time of war is undoubted.

OFFICE OF DETAIL.

Under your instructions, as large a number of junior officers of the Navy has been detailed for duty on the United States Coast Survey as the urgent demands of the naval service will permit. Fifty officers of the Navy are now assigned to duty under the Superintendent of the Coast Survey. This duty is in itself a national necessity; it is also a most valuable school of instruction, as is shown through the services of naval officers in their legitimate duties, and especially during the different wars in which they have taken part.

Respectfully submitted.

DAN'L AMMEN,
Chief of Bureau.

Hon. GEORGE M. ROBESON,
Secretary of the Navy.

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BUREAU OF EQUIPMENT AND RECRUITING.

NAVY DEPARTMENT,
BUREAU OF EQUIPMENT AND RECRUITING,
Washington, October 15, 1875.

SIR: I have the honor to submit the following report of this Bureau for the past fiscal year, together with estimates for its support for the fiscal year ending June 30, 1877.

During the past fiscal year 110 vessels have been either partially or wholly equipped under this Bureau at the several navy-yards, at an expenditure of labor and material amounting to $566,221.83.

Two hundred and fifty-three tons of hemp have been purchased, costing $74,151.58. Thirty-nine thousand five hundred and seventy-nine tons of coal have been purchased, at home and abroad, for the use of

the Navy, under this Bureau, costing, including freights on shipments, $415,863.53.

The rope-walk at the Charlestown navy-yard has supplied the wants of the service with wire, hemp, manila, and hide-rope.

The equipment-shops at the Washington navy-yard have furnished all the anchors, chains, galleys, &c., needed for the service.

I have respectfully to invite your attention to the frequently overcrowded state of the receiving-ship at the Brooklyn navy-yard; this overcrowding endangers the health as well as the comfort of the recruits, and I would therefore recommend that the hulk Vermont be roofed and fitted up with mess-rooms, dormitories, kitchens, &c., capable of accommodating 600 persons, and be used as a supplement to the receiving-ship when occasion may so require.

A building is now being erected by the Bureau of Yards and Docks on the Cob Dock, to contain both wash and reception rooms for the additional comfort and convenience of the recruits.

This arrangement is urgently recommended as a sanitary measure; during the excitement of 1873, resulting from the threatened disturbance with Spain, the recruits being crowded upon the receiving-ship, without sufficient facilities for their comfort and cleanliness, and almost without shelter, disease of nearly every form appeared among them; sick and discontented, the men either deserted or were drafted for service unfit, from these causes, to perform the duties required of them.

Such a condition of things demands a remedy; aside from the destructive effect upon the efficiency of the Navy, it is disgraceful to the country and a justifiable cause of discontent and its concomitant desertion.

The expense of fitting up the Vermont for this purpose has been included in the present estimate under appropriation, contingent.

Referring to the recommendations of my predecessor in relation to the furnishing enlisted men with an outfit of clothing on entering the service, I would recommend that an allowance for outfit to the amount of $50 be credited to each recruit after three months' service, as an offset to the amount charged to his account for clothing on his entry into the service.

I would also recommend that the provisions of the act of Congress approved May 15, 1872, allowing interest at the rate of 4 per cent. per annum on the savings of soldiers deposited with paymasters, be extended to apply to the amounts due enlisted men in the Navy, and retained until the expiration of their terms of enlistment, under such regulations as the Department shall direct.

Owing to the decrease of commerce under the American flag there has been a growing deficiency of good seamen for the Navy.

This fact, which would become startlingly apparent on any emergency requiring the service of the Navy in time of war, has induced the Department to establish training-ships at the Brooklyn, Kittery, and Mare Island navy-yards, for the purpose of training boys for sailors in the Navy; this has been done without additional cost.

According to law a number of boys have already been enlisted to serve until reaching twenty-one years of age, and a system of training and regulations have been adopted which are believed will secure the end in view. There are 260 of these lads now under instruction, and the reports of their commanding officers exhibit the most satisfactory results. Should the system be extended and made permanent, it is hoped that in a short time the Navy will be manned by intelligent and native-born seamen, and many boys rescued from idle and vicious lives, to enter upon a useful and honorable career.

The *personnel* of the Navy being limited to 8,500 men, the boys already enlisted have been taken from this allowance. I have, therefore, urgently to recommend for your consideration that Congress be asked for the enactment of a law authorizing the enlistment of 500 boys in addition, and the furnishing by the Government an outfit of clothing, not to exceed $50 for each boy.

The foregoing projects for the health and comfort of the recruits, and the improvement of seamen in the Navy, are earnestly recommended for your consideration and approval.

The time has come when something besides coercion must be used to improve the *morale* of the Navy; educate the man for the service and give him inducements to remain in it, by consulting his wants, both mental and physical.

The records of this Bureau prove that the fear of punishment does not deter men from deserting; take away the provocation for desertion and this demoralizing crime will diminish; if it then ensues, punish it with the rigor of military law.

The statute-books are full of enactments in favor of the officers of the Navy, but we look almost in vain for any legislation in favor of its seamen.

One or two laws of a negative character—the abolition of flogging and the banishment of the grog-tub—are about the total of the enactments looking to the improvement of the rank and file; the apex of the pyramid has been adorned, but the foundation-stones lie in an inchoate condition, threatening at any time to bring the whole structure to ruin.

There has never within my experience been other than spasmodic efforts made to elevate and enlighten our men, and even these efforts have been rendered futile, either through prejudice or inattention.

The legislation now sought is but a step in the right direction, and is imperatively called for to save the *personnel* of the Navy from complete demoralization.

It is to be hoped that Congress, which provides liberally for the education of the officers, will not refuse to grant the small sums asked for to promote the health and education of the men who form the rank and file, upon whose conduct in time of war depend in equal measure the reputation of the service and the safety of the country, and whose career in time of peace might add so much to the honor of a republican Government.

I am, very respectfully, your obedient servant,

R. W. SHUFELDT,
Chief of the Bureau of Equipment and Recruiting.

Hon. G. M. ROBESON,
Secretary of the Navy, Washington, D. C.

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BUREAU OF ORDNANCE.

BUREAU OF ORDNANCE, NAVY DEPARTMENT,
Washington City, September 15, 1875.

SIR: I have the honor to submit the annual report of this Bureau, with accompanying estimates for the fiscal year ending June 30, 1877. These estimates are prepared after a careful consideration—

First, of the current wants of ordnance based upon experience, $360,121; and, secondly, upon improvements necessary to preserve the

public property or to diminish the expense of current work, $95,299; torpedo-service, $103,000. To which is added an estimate for rifled cannon, $654,100; total, $1,412,520.

Each of the first two items is considerably larger than the amount appropriated for the current year; but the efficiency of the ordnance-service has suffered by the necessity of working up old and defective material where new should have been supplied.

The estimate for rifled cannon is new, and in its support I submit the following reasons:

RIFLED CANNON.

The experiments which have been made by the Army ordnance at Sandy Hook during the past year have proved the entire practicability of converting the Army 10-inch smooth bore, of about the same weight and general dimensions of the Navy 11-inch, into a powerful 8-inch rifle.

The Bureau, therefore, proposes to commence with the conversion of a sufficient number of the 11-inch to arm the new sloop Trenton and supply pivot guns to the larger frigates.

If we are to keep pace with other maritime nations, the necessity of a general re-armament of our ships with rifled cannon is evident, and so strongly is this impressed upon all commanding officers who meet foreign ships that the Bureau is in constant receipt of reports making depreciatory comparisons between their own and foreign armaments.

Although we can convert the 11-inch pivots into powerful muzzle-loading rifles for upper decks, they are by no means so efficient as new guns specially designed for the purpose, while for broadside guns and small ships, breech loaders are indispensable. I therefore take leave to renew my recommendations of last year relative to obtaining a supply of breech-loading rifles of various calibers.

The twenty 12-inch rifles estimated for form the armament of the five double turreted monitors now in construction, and will take some time to manufacture; not less than a year after the appropriation becomes available, if we engage all the mechanical resources of the country. These vessels are essential to aid in the defense of our most important harbors.

TORPEDOES.

This branch of the ordnance-service is in a very efficient state, and I beg leave to recommend liberal appropriations for its support.

The torpedo is in its nature a defensive rather than an offensive weapon, and is an adjunct to, but can never supply the place of, efficiently armed vessels, even for defense.

All authorities agree in the opinion that torpedoes alone cannot protect themselves or close important harbors; but should be commanded by artillery fire and be supported by monitors, rams, and movable torpedoes.

The defense may be considered then on a good basis, if the monitors are armed as above estimated for.

Our efforts are now principally devoted to developing the offensive use of torpedoes by specially constructed vessels such as the Alarm and Intrepid, by fast steam-launches, and by the movable torpedoes of Lay and Ericsson. Each of these has achieved a considerable success but all are deficient in speed.

The movable torpedoes of Lay and Ericsson can be submerged and directed from the shore, or a monitor, with great accuracy; and the former for considerable distances; farther, indeed, than is, in my opinion, requisite or useful. Further experiment will, without doubt, develop an increased speed and value.

I recommend an appropriation for the purchase of the "best movable torpedo," to be determined after a competitive trial, as I am of the opinion that invention in this direction is not exhausted.

All cruising ships are fitted with the spar and towing torpedoes, and many officers are well instructed in their use.

Since torpedoes are to play an important part in maritime warfare, I recommend that all officers of and below the rank of captain shall be required to attend the course of instruction, as a knowledge of the preparation and use of torpedoes is now as necessary as of the great-gun drill.

Two officers, Captain McCauley and Commander Kirkland, have voluntarily attended.

DIVERS.

Arrangements are now being perfected for adding to the appliances of the torpedo station a limited number of seamen-gunners, to be instructed in all the details of submarine warfare; especially in the practice of laying torpedoes for defensive purposes, in removing and rendering inoperative those of an enemy, and in work upon obstructions, &c.

In due time it will then be expedient to add one diver to the complement of each ship, who will be also useful for general under water repairs; and no doubt many zealous officers will, as in other navies, obtain certificates as divers.

MAGAZINES.

The magazine at Craney Island has been completed, the powder from Fort Norfolk transferred to it, and the latter place converted into a much needed ordnance depot.

Fifty thousand dollars could be advantageously expended in adding to the facilities of this station for the reception of powder.

I take leave to renew the frequent statements of my predecessors, calling attention to the dangerous proximity of the naval magazine at Ellis Island to the city of New York and Jersey City, and to recommend an appropriation for the purchase of a new site.

I have the honor to be, with great respect, your obedient servant,

WILLIAM N. JEFFERS,
Chief of Bureau.

Hon. GEO. M. ROBESON,
Secretary of the Navy.

UNITED STATES TORPEDO-STATION,
Newport, R. I., October 8, 1875.

SIR: In accordance with orders from the Navy Department dated September 17, 1875, we have to make the following report to the Bureau of the results of the examination of officers under instruction at this station.

The board met and organized on the 4th instant, and since then have been afforded every facility and assistance in making themselves acquainted with the condition of affairs at the station.

Besides which, through the kindness of Admiral Porter, they were enabled to witness the extraordinary performance of the torpedo-boat Alarm; and although this is not included in the authorized subjects of this report, they desire to express their high appreciation of the results obtained in the application of modern scientific discoveries to the purposes of naval warfare.

The following programme, arranged by the commanding officer of the station, was substantially followed:

One day for chemistry.
One day for electricity and fuses.
One day for torpedoes.
Two days for practical exercises and such arrangements as the board of visitors may desire.

During the time devoted to the latter feature of the examination, the board had the pleasure of witnessing experiments with service-torpedoes from the Nina while under way, as also the firing of standard and exercise torpedoes from steam and rowing launches.

The operation of both the Ericsson and Lay torpedoes, in presence of the board, proved highly interesting.

The proficiency shown by the class of officers under instruction here for the short space of only four months is, in our opinion, ample warrant for the wisdom of the course adopted in establishing this institution, while their familiarity with and dexterity in the practical use of torpedoes are of inestimable benefit to the service.

The board would recommend as great an extension of the system (so far as the number of officers to be instructed is concerned) as is practicable.

The benefits of the establishment are further and more fully demonstrated by the very valuable inventions and improvements made by post-graduates of the station, in torpedoes, electrical devices, and practical applications of other known appliances to the uses of the service.

The board would recommend that a frigate's steam-launch, fully fitted for service, be furnished to the station, and, if possible, a larger vessel of great speed; both of which are eminently essential for the full development of the objects of the institution.

They would further recommend the construction of a sea-wall on the west side of the island, to prevent the progressive washing away of that portion of the grounds, which is of great value and has already been seriously encroached upon and reduced.

We are, sir, very respectfully,

A. M. PENNOCK,
Rear-Admiral and President.
WM. G. TEMPLE,
Captain U. S. N.
GEO. BROWN,
Commander U. S. N.
J. D. MARVIN,
Commander U. S. N.

Commodore WILLIAM N. JEFFERS, U. S. N.,
Chief of the Bureau of Ordnance, Navy Department.

BUREAU OF MEDICINE AND SURGERY.

NAVY DEPARTMENT,
BUREAU OF MEDICINE AND SURGERY,
November 1, 1875.

SIR: Herewith I have the honor to submit the annual report of this Bureau, together with estimates for the support of the medical department of the Navy, for the fiscal year ending June 30, 1877.

NAVAL HOSPITALS.

The amount appropriated under head of "Repairs and Improvements of Hospitals," for the fiscal year which expired on the 30th of June last, was so small that repairs only of the most urgent kind, or those indispensable to the preservation of the buildings from deterioration, have been possible. Since the commencement of the current fiscal year, however, a more liberal sum has become available, and strenuous efforts are now making to put them in good condition.

1. The small building occupied as sick-quarters at the Navy Yard, Portsmouth, N. H., has fallen into such a state of dilapidation from age, that no amount of repairs, however judiciously done, can render it habitable much longer. At best it offers but the poorest sort of accommodations for five or six patients. It is my decided opinion that it should be abandoned without delay, and a suitable hospital of the pavilion style erected on land now belonging to the Government, beyond the limits of the yard. Provision of some kind must necessarily exist on the station for the reception and care of cases of an acute or temporary character, and especially of injuries and wounds. Chronic cases of disease and those admitting of transportation may continue to be sent to the hospital at Chelsea, Mass. A ward large enough to accommodate ten or twelve patients would answer all purposes and could be constructed at a small cost.

2. Under the limited appropriation of last year the Chelsea hospital has received only the most necessary repairs, but with the more ample means at the disposal of the Bureau for the present year, considerable progress has been made of late toward placing it in reasonably good order.

3. The New York hospital has been put in as satisfactory condition as our resources would permit, but still falls below what the principal establishment devoted to the care of the sick and wounded of the Navy should be. During the remainder of the fiscal year a large amount of repairs will be needed, but fortunately they can be effected with the funds now available to the Bureau, although nothing will be left for those accessory improvements which are usually considered indispensable in civil institutions of the same kind. The central situation and large capacity of this hospital require that it be kept, at all times, prepared for every demand that may be made upon its resources.

4. The steam-heating apparatus of the naval hospital at Philadelphia has recently been thoroughly repaired, and will now last a long time without calling for further expenditures. The outer wood-work of the building having been found to be suffering from exposure to the weather, is undergoing the process of repainting, and the roof, which was beginning to leak, has also been overhauled and repaired. These much-needed improvements will contribute greatly to the comfort of the inmates as well as to the durability of this handsome structure.

5. The hospital at Washington is organized on the smallest possible scale, and not a dollar has been expended upon it beyond what was required for unavoidable repairs. It draws its supply of patients from the navy-yard and marine barracks, besides opening its wards for the reception of officers of the Navy who may be taken ill while temporarily sojourning at the capital. Though of restricted dimensions it has proved adequate for all our wants, and as long as it is the policy of the Department to maintain a navy-yard and marine barracks at this station, I do not see how an establishment of the kind can be dispensed with.

6. The hospital at Annapolis was designed for the sick of the Naval

Academy and the practice-ships connected therewith. It is a much larger building than is needed for present purposes, and in time of peace will probably never be filled. Its service has been reduced to the minimum standard, and no expenditure allowed which was not required to protect the building from the action of the elements. It is now in very fair condition, and with present appliances is capable of providing for all the sick likely to seek its sheltering care. As the cadet-midshipmen and officers of the academy, with the marines and crews of the vessels attached to the station, amount to between five and six hundred persons, in the event of an epidemic breaking out it is obvious how desirable it might be to possess so commodious an establishment, where no hospital or infirmary exists within the limits of the adjoining town. As this hospital was built and paid for out of the naval-hospital fund, and therefore without cost to the Government, such a possibility should not be overlooked when deliberating on the propriety of alienating this handsome and substantial building. Moreover, if sold, the proceeds would revert to the naval-hospital fund, and not be covered into the National Treasury.

7. During the past year every effort has been made to keep the hospital at Norfolk in the best possible condition, but, for the reason already stated, our means were only sufficient for the performance of those repairs without which the building would have ceased to be habitable. From its situation and accessibility this is one of our most valuable establishments for the care of the sick, and, though very capacious, is, nevertheless, liable at any time to have its resources subjected to the severest strain. When driven from the Gulf of Mexico or West Indies by the prevalence of yellow fever or for the purpose of refitting, the vessels of that large squadron usually resort to Norfolk as the most convenient port of refuge, and generally bring with them large numbers of invalids to people its spacious wards. Vessels ordered to this port from other stations also furnish their quota of sick, and materially add to the demands made on this fine establishment. Hence the importance of always maintaining it in a state to meet these emergencies, which are at once unavoidable and incapable of being anticipated. The appropriation available since the commencement of the present fiscal year has permitted the application of a considerable sum to repairing and improving this hospital, and it is further proposed, while withholding as far as practicable expenditures from other hospitals, to place it on the best footing commensurate with our means.

8. Since my last report, the old infected hospital in the navy-yard, Pensacola, has been demolished, and in its stead a medium-sized pavilion erected on the grounds of the old naval hospital, near Fort Barrancas, by the Bureau of Yards and Docks, on plans prepared by this Bureau. Some delay in furnishing it has arisen from the prevalence of fever in that vicinity, but this difficulty will soon cease, and it is intended before winter sets in to have the hospital thoroughly equipped for the reception of patients, fifty of whom, on an emergency, can be accommodated, although at present it is not deemed expedient to provide for more than half that number. In the event of a large force being concentrated at any time in the Gulf, an establishment of this kind would be of the first importance. Had it existed last year when the yellow fever prevailed so fatally at the navy-yard and in the adjacent towns, valuable lives might have been saved, or, at least, needless suffering spared to our officers and seamen when stricken by the pestilence.

9. The hospital at Mare Island, Cal., is so rapidly assuming the proportions of a first-class establishment that last quarter its reports showed a larger number of sick than any other, not excepting the large hospital

at New York. Its wards are replenished, not only from the two squadrons of the Pacific, but periodically considerable detachments of invalids are received from the Asiatic squadron, and with the assumed prospective increase of our forces in the East the numbers will increase. The importance of this hospital cannot, therefore, well be overrated. All the medical officers, from the absence of quarters outside, are compelled to live within its walls, and, in the very possible event of crowding, the space that should be devoted to the use of the sick might be inconveniently curtailed. A suitable house should be built for the medical director in charge, and a special estimate for this purpose is respectfully submitted. I also renew the recommendation, made in my last report, of an appropriation for certain much-needed works, therein enumerated, looking to the improvement of the hospital and its surroundings.

NAVAL LABORATORY.

Since my last report I regret to say that the Naval Laboratory has been deprived, by death, of the valuable services of its late head, Medical Director A. A. Henderson, U. S. N. Under his successor it continues to fulfill its important function of furnishing an ample supply of pure medicines and superior surgical instruments to the Navy.

LIBRARIES.

I beg to renew the recommendation of a former report, that a small sum be appropriated for the purchase of books, periodicals, and newspapers for the use of patients in our naval hospitals. The want of such means for whiling away the tedious hours of sickness and convalescence has long been felt, but can be supplied at a moderate expense. A similar want of professional works for reference and study by the medical officers attached to these establishments also exists, and cannot be remedied by the means at the disposal of the Bureau. A hospital without a medical library, I need hardly say, is an anomaly in the history of such institutions, and yet a score or two of volumes at each of our naval hospitals constitute their only claim to the possession of what is everywhere regarded as an essential portion of hospital outfit and equipment. It is true the deficiency is supplied to a certain extent by the private collections of these officers themselves, but their necessarily restricted means, as well as the exigencies and vicissitudes of naval life, make this a very inadequate reliance, besides imposing upon them an expense which the Government itself manifestly should bear. Our medical officers ought not to be allowed to retrograde from want of access to the best modern authorities, and it is only those familiar with the prolific character of the medical press at the present day who can comprehend how far its productions are above the resources of any private purse.

QUARANTINE AT PENSACOLA.

The sanitary regulations adopted by your authority at Pensacola have been so stringently enforced during the present season that the result should be a subject of congratulation to the Department. Notwithstanding the general prevalence of yellow fever in that vicinity, the navy-yard and adjacent towns of Warrington and Woolsey have enjoyed perfect immunity from the disease; while the few cases which have occurred in persons belonging to the Navy were confined to the marines doing picket-duty near Fort Barrancas, where yellow fever has been prevailing with great virulence. For this gratifying state of things too great praise cannot be accorded to Commodore George H. Cooper, commandant of the navy-yard, and Acting Assistant Surgeon William

Marlin, who was specially intrusted with the maintenance of the quarantine. Although it may be too early in the season to assert positively that all danger of infection has passed away, there is good reason to hope so, and at all events we should be thankful for the immunity thus far vouchsafed us.

NAVAL HOSPITAL FUND.

In the estimates herewith submitted is the sum of $100,000 to be appropriated to the naval hospital fund. Should it not be deemed feasible to augment the fund in this way, I venture to suggest the expediency of raising the interest of the naval pension fund from 3 per centum (at which rate it is now invested in Government bonds) to 6 per centum, and that the sum of $100,000 accruing from the increase of interest be annually set over to the credit of the naval hospital fund. The naval pension fund, which at present represents a capital of $14,000,000, no longer yields at 3 per centum sufficient for the payment of naval pensions, the deficit last year amounting to $75,000, which was made good by a special appropriation. At 6 per centum the income would be equal to the liquidation of all pension claims, besides leaving a handsome balance, of which a portion might be made available for transfer to the naval hospital fund. Although the fund in question, as its name implies, was originally instituted, and has ever since been sacredly held, for the payment of pensions to disabled officers, seamen, and marines of the Navy, when more than sufficient for this purpose, there appears to be no violation or evasion of law in applying the surplus to those objects for which the congenerous fund was also established. The eleventh section of the "Act for the better government of the Navy of the United States," approved July 17, 1862, seems to leave no room for doubt on this point. It is in these words, viz:

> That all money accruing or which has already accrued to the United States from sale of prizes, shall be and remain forever a fund for the payment of pensions to the officers, seamen, and marines who may be entitled to receive the same; and if the said fund shall be insufficient for the purpose, the public faith is hereby pledged to make up the deficiency; but if it should be more than sufficient, the surplus shall be applied to the making of further provision for the comfort of the disabled officers, seamen, and marines.

It is difficult to conceive any disposition of such surplus that would more effectually conduce to the further comfort of disabled officers and seamen, than its merger in another fund exclusively devoted to the promotion of their welfare in those hospitals to which so many of both classes habitually resort.

For the further augmentation of this fund, I would recommend that hospital money, which is now deducted from the pay of every person in the Navy at the rate of 20 cents per month, be increased to 40 cents, as was done by law a few years ago with the sailors of the merchant marine. This deduction from the wages of seafaring men was first authorized by the act of March 2, 1799, and applied alike to those of the Navy and the merchant service. By the act of February 26, 1811, the two were separated, and the hospital money of the former transferred to a new fund styled the "naval hospital fund." The recent doubling of hospital money in the merchant marine was based on the enormous increase of all values during the past three-quarters of a century, more particularly within the last few years; and the same considerations which led to the change in that branch of the maritime service apply with equal force to the Navy.

PUBLICATION.

A work embracing sanitary reports and reports on the ventilation of ships of war, will soon be ready for publication. As it contains a large

body of facts and observations, not only in regard to the hygiene of the vessels themselves, but also with reference to countries and ports visited by them in various quarters of the world, it is not doubted that it will be found highly useful for reference by commanding as well as medical and other officers. The information thus condensed in its pages has been collected in the ordinary course of naval duty, and appears in its present form without other expense to the Government than that of printing and binding.

Very respectfully, your obedient servant,

J. BEALE,
Surgeon-General U. S. N.

Hon. GEORGE M. ROBESON,
Secretary of the Navy.

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BUREAU OF PROVISIONS AND CLOTHING.

BUREAU OF PROVISIONS AND CLOTHING,
October 30, 1875.

SIR: I have the honor to submit herewith estimates, marked A, B, C, and D, for the fiscal year ending June 30, 1877.

The Bureau takes this opportunity to recommend that a plan somewhat similar to that provided for the Army by act of Congress approved May 15, 1872, be adopted in the Navy, to encourage thrift and economy among the sailors, and would respectfully suggest, as to the manner of carrying this plan into effect, that upon the close of each quarter any balance remaining on the books of a paymaster to the credit of a sailor shall bear interest at the yearly rate of 4 per cent., to be calculated from the first of each quarter, and shall remain on the paymaster's books until the end of the cruise. Money allowed to remain on interest to be forfeited by desertion, but to be exempt from forfeiture by sentence of court-martial. This method will not add materially to paymasters' duties, and will obviate the necessity of deposit-books and separate banking account, as required by the army system.

It is the opinion of the Bureau that the passage of an act of Congress authorizing a provision of this nature would not only tend to prevent desertions, but would be beneficial to the sailors as well as to the service.

It is also respectfully recommended that appointments to the paymasters' corps of the Navy be made from graduates at the Naval Academy at Annapolis, as it is the opinion of the Bureau, strengthened by the favorable result produced by the appointments to the engineers' corps of the Navy, under the new system, that the proposed change would tend to promote unity of feeling between line and staff officers and add materially to the efficiency of the naval service.

I desire to renew my recommendation that, in lieu of the outfit of clothing recommended by several of my predecessors, a credit of three months' pay be given to each enlisted man when he shall have been shipped three months, which, in my opinion, would be more effectual to prevent desertions than an outfit to each man at the time of his shipment.

I am, very respectfully, your obedient servant,

JAS. H. WATMOUGH,
Acting Paymaster-General, United States Navy.

Hon. GEO. M. ROBESON,
Secretary of the Navy.

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BUREAU OF STEAM ENGINEERING.

NAVY DEPARTMENT, BUREAU OF STEAM-ENGINEERING,
Washington, November 13, 1875.

SIR: I have the honor to submit the annual report of this Bureau, with estimates for the several navy-yards, for repairs to the machinery of naval steamers, for the preservation and refitting of machinery of vessels on cruising stations, and for necessary materials, stores, supplies, &c., under cognizance of this Bureau.

MACHINERY, ETC., REPAIRED.

During the year past, the machinery of the following-named vessels has been repaired and refitted for active service. Those marked with an asterisk (*) have had new boilers placed on board: Franklin, (first rate,) Pensacola, (second rate,) Plymouth, (second rate,) Ticonderoga, (second rate,) Ossipee, (third rate,) Tuscarora, (third rate,) Canonicus, (iron-clad, fourth rate,) *Jason, (iron-clad, fourth rate,) *Montauk, (iron-clad, fourth rate,) *Nantucket, (iron-clad, fourth rate,) Saugus, (iron-clad, fourth rate,) Gettysburg, (fourth rate,) Tallapoosa, (fourth rate,) and *Palos, (fourth rate.) Repairs to the machinery of the following-named vessels are now being executed. Those marked with an asterisk will receive new boilers: *Benicia, (second rate,) *Amphitrite, (iron-clad, third rate,) *Monadnock, (iron-clad, third rate,) *Terror, (iron-clad, third rate,) *Ashuelot, (third rate,) *Iroquois, (third rate,) Monocacy, (third rate,) Comanche, (iron-clad, fourth rate,) *Cohasset, (tug,) *Leyden, (tug,) *Mayflower, (tug,) *Phlox, (tug,) *Rose, (tug,) and Snowdrop, (tug.)

The following-named vessels need repairs to their machinery. Those marked with an asterisk (*) will require new boilers: Colorado, (first rate,) *Wabash, (first rate,) *Brooklyn, (second rate,) Alaska, (second rate,) Benicia, (second rate,) Canandaigua, (second rate,) *Congress, (second rate,) Dictator, (iron-clad, second rate,) *Lancaster, (second rate,) *Shenandoah, (second rate,) *Worcester, (second rate,) *Juniata, (third rate,) *Narragansett, (third rate,) *Saco, (third rate,) *Wachusett, (third rate,) *Wyoming, (third rate,) *Pinta, (tug,) and Standish, (tug.)

NEW MACHINERY, ETC.

At the Norfolk navy-yard, new machinery of the compound type is being constructed for the Galena, and at the Mare Island yard similar machinery for the Mohican.

Since my last report, compound engines for the Alert, Alliance, Ranger, Adams, Essex, and Huron have been completed and successfully tried. Compound engines for the Trenton, Enterprise, and the double-turreted monitor Miantonomoh are in process of construction, and are being erected on board the two former vessels.

Engines for the Marion, Quinnebaug, and Vandalia have been converted from simple to compound engines in the navy-yards, and are being erected on board. These vessels, so far as the machinery is concerned, will be ready for sea in a few weeks.

Duplicate machinery is required for the Amphitrite, Terror, and Monadnock, all of which are twin-screw monitors.

THE NEW COMPOUND ENGINES AT SEA.

The Swatara, the first of the compound-engine ships, has made successfully a voyage round the world, on service connected with the Transit of Venus expedition. The vessel encountered tempestuous weather and a continuous succession of gales off Cape Horn and in the high southern latitudes visited. Before sailing she had not been subjected (for want of time) to the usual trial-trip at sea; but notwithstanding this, the fact was established on the voyage that no type of engine yet used in the Navy had produced such economical results as the compound engines with which the Swatara was fitted.

The Tennessee, fitted with compound engines designed and built at the Morgan Iron-Works, New York, has been sent to the Asiatic station. Chief Engineer W. H. Shock, under whose supervision the work was constructed and erected, was sent with the ship as far as Suez to witness the performance of the machinery. His reports are appended hereto, marked A and B.

Table C is a tabulated schedule of the compound engines designed by or for the Bureau, giving all necessary dimensions, &c.

BOILERS.

During the past year boilers have been built, or are now in process of construction, for the following vessels: Lancaster, Shenandoah, Wachusett, Amphitrite, Monadnock, Terror, Jean Sands, Phlox, Cohasset, Leyden, Mayflower, Pinta, Rose, Speedwell, Triana, and Standish. Those for the eight last-named vessels are already completed.

Two of the boilers removed from the California at the Mare Island navy-yard were placed in the Pensacola, flag-ship of the North Pacific station. The remaining two have been placed in the Lackawanna.

Table D shows the relative endurance or lifetime of steam-boilers used in connection with machinery of different types in United States naval steamers. It appears from this that vessels fitted with the old type of jet-condensers were able to use their boilers a much longer time than those furnished with the more modern type of tubular or surface-refrigerating condensers; but the economy in fuel effected by the use of the latter improved condenser more than compensated for the increased cost of boilers in each case. The decay of boilers incident to the use of the surface-condenser has now been arrested to a great extent by the use of the filtering apparatus, which promises in the future an extended period of endurance of the boilers in connection with which it may be applied.

COMPARATIVE ECONOMY OF THE VARIOUS TYPES OF ENGINES.

The following table has been compiled from the log-books of United States naval steamers fitted with different types of machinery, to show the relative cost in pounds of coal per indicated horse-power per hour. It will also be seen that since the introduction of steam into the vessels of the Navy the economy, efficiency, and character of the machinery has steadily advanced.

Table showing the relative economic performance of the machinery of the vessels of the Navy from 1843 to 1864, all being simple engines.

Name of vessel.	Steam-pressure in boilers in pounds per square inch above the atmosphere.	Number of times the steam was expanded.	Pounds of anthracite consumed per hour per indicated horse-power.	Remarks.
Mississippi	16	4.00	4.00	Paddle-wheel; jet-condensers.
Powhatan	16	4.00	4.00	Do.
Susquehanna	16	4.00	4.00	Do.
Saranac*	18	2.77	3.50	Do.
State of Georgia	19	2.28	4.173	Do.
Fulton	15	2.94	4.009	Do.
Niagara	19	3.28	3.80	Screw-frigate; jet-condensers.
Minnesota	11.3	3.00	4.268	Do.
Roanoke	13	3.19	4.264	Do.
Colorado	13	3.19	4.264	Do.
Merrimac	13.5	3.25	4.371	Do.
Wabash	15	3.26	4.091	Do.
Pensacola	27.8	5.37	5.044	Dickerson's engine.
Brooklyn	18.0	3.00	3.953	
Wyoming	16.8	2.60	3.641	
Iroquois	17.0	3.00	3.50	
Chippewa, Huron, Penobscot, Winona, Sciota, Kennebec, Pinola, Marblehead, Sagamore, Katahdin, Aroostook, Tahoma, Cayuga, Chocura, Itasca, Kanawha, Kineo, and Owasco.	20	1.666	3.757	These vessels have duplicate machinery, and the results are the mean of all their trials.
Miami	26.5	1.45	3.605	Paddle-wheel; surface-condenser.
Octorara	35.0	1.666	3.285	Do.
Port Royal	21.0	4.000	3.894	Do.
Adirondack, Oesipee, Canandaigua, Juniata, Sacramento, Lackawanna, Monongahela, Shenandoah, and Ticonderoga.	25.3	1.82	3.550	These vessels have duplicate machinery, and the results are the mean of their trials.
Tacony, Mattabesett, Osceola, Chenango, Mendota, Chicopee, Tallapoosa, Ascutney, Shamrock, Agawam, Sassacus, Otsego, Pawtuxet, Pontoosuc, Pontiac, Wyalusing, Wateree, Iosco, Massasoit, and Mingoe.	23.5	1.666	3.276	Paddle-wheel vessels, with duplicate machinery. The results are a mean of all their trials. Surface-condensers.
Eutaw	27.6	1.96	2.962	Paddle-wheel; surface-condenser: superheated steam.
Nipsic, Shawmut, and Nyack	25.0	1.666	3.750	Duplicate machinery; surface-condensers; a mean of all their trials.
Mauumee	24.6	2.500	3.842	Surface-condenser.
Swatara	35.0	2.000	3.773	Original vessel.
Pensacola	30.0	2.000	3.494	New engines.
Dictator	17.9	2.500	6.080	Jet-condenser.
COMPETITIVE ENGINES.				
Idaho	37.9	7.70	7.600	Dickerson's engine.
Chattanooga	27.5	1.92	6.160	Merrick & Son's engine.
Madawaska	29.8	1.66	5.170	Ericsson's engine.
Wampanoag	32.4	1.50	3.129	Bureau's engine.
IRON-CLADS.				
Miantonomoh	35.1	1.82	4.068	
Monadnock	20.4	1.35	3.869	
Tonawanda	23.0	1.50	3.825	
Economic efficiency of compound engines designed since 1872.				
Tennessee	58.13	6.57	3.46	
Alarm	58.0	5.53	2.36	
Intrepid	63.0	3.84	3.17	
Swatara	64.2	6.50	2.03	Converted from simple engine.
Huron	49.0	6.50	2.79	
Adams	77.7	5.05	2.25	

* Experiment made with fresh water in boilers.

SCREW-PROPELLERS.

The log-books of the naval steamers having two-bladed screws show great loss of speed, owing to the insufficient area of the blades. My last report included an exhaustive treatise on the screw-propeller, and from carefully-conducted experiments cited therein, the fallacy of the use of two-bladed screws, as applied to our vessels, was made apparent. In consideration of the facts elicited, and with the permission of the honorable Secretary of the Navy, the four-bladed screws have been restored to several of our naval steamers, and these changes will be continued as opportunities are afforded.

MACHINIST SYSTEM.

Owing to the great number of vacancies in the naval engineer corps, much of the duty formerly devolving upon engineer officers is now performed by a class of enlisted men rated as machinists. In the effort to procure the best and most reliable class of men for this duty, the pay of the grade was increased as an inducement for accepting the positions, but little improvement in this direction has resulted, and injury to boilers and machinery, in consequence of ignorance or neglect of irresponsible men in charge of the regular steaming watches, has become a frequent occurrence, attended with great danger, and disabling the machinery for the time being and until repairs are effected, in many cases of a most expensive character.

On a comparison of the actual cost of vessels in commission with full complements of machinists, and again with engineer officers, it is found to be cheaper when the latter are employed, in view of the increased cost for repairs to machinery, without reference to the proper and efficient maintenance of the engineer department, or to the danger resulting from accidents avoidable by the employment of responsible engineer officers.

FIREMEN.

Since my last annual report, the seamen and ordinary seamen who were enlisted, or had been detailed for service in the engineer's force, have been rated as first and second class firemen, and given the pay established for those grades. It is hoped that the restoration of these rates will attract to the service the class of experienced firemen who formerly enlisted, but who for some years past have almost ceased to be represented in the Navy.

PERSONNEL OF THE ENGINEER CORPS.

A large number of vacancies still exist in the list of Assistant Engineers, and but few qualified candidates are applying for the positions. The engineer graduates of the Naval Academy are filling some of these vacancies very satisfactorily, but they are insufficient in number at the present time. The system of educating officers for the engineer corps at Annapolis is one that cannot be too strongly commended. It is already bearing good fruit in the service, as the graduates are highly commended for usefulness and zeal by their superior officers. At Annapolis we have a scientific school of mechanical and marine engineering second to none in the world, and I would respectfully recommend that its usefulness be extended by increasing the number of cadet-engineers to such an extent as to fill in a short time the vacancies now existing in the corps, and render unnecessary any further appointments direct from civil life. Officers trained at the academy necessarily enter the service at an earlier age than direct appointees, and for that reason

will be much more likely than they to remain permanently in the Navy, and not resign when from experience their services have attained their highest value to the Government. In this connection, it is gratifying to remark that the suggestions in my last annual report, in regard to the physical culture of the cadet-engineers, have been carried out. I fully concur in the recommendation made by the last board of visitors that the steam-building should be enlarged.

THE NAVY-YARDS.

There is in the steam-engineering plant of the several navy-yards a large amount of valuable machinery, affording means adequate to maintaining in proper and efficient condition the machinery of the vessels of the Navy as at present constituted, and for the construction of such marine engines and boilers as may properly be required for the naval purposes of a strictly peace organization. Should, however, any emergency arise rendering necessary any considerable increase of the naval force, the resources of private establishments (machine-shops and foundries) would necessarily be called into requisition. The limited amount appropriated for the purposes of this Bureau renders it necessary to economize and reduce its expenditures to the lowest possible limit. The hours of labor in the navy-yards have been reduced by act of Congress by two-tenths from those previously required as a day's work. This has had the effect of increasing the expenditures for labor practically one-fourth for the same amount of work; and hence it has become cheaper to procure much of the work formerly executed at the yards, from private establishments. One-third of the whole amount appropriated by Congress for the purposes of this Bureau is absorbed by labor in navy-yards; and under the changed conditions above referred to, the amount expended for labor will need to be increased one-fourth in order to obtain the same result in work as formerly.

EXPERIMENTS.

The cost of conducting experiments, and of obtaining therefrom reliable data tending to secure increased efficiency and economy in all matters pertaining to the science of marine propulsion, precludes private individuals and corporate companies from attempting them, except upon a very limited scale. The engineering skill of this and other maritime nations looks to their governments to conduct these experiments, and to publish for the general good the data and deductions obtained from them. Since the close of the late rebellion Congress has ceased to grant appropriations for experimental purposes under cognizance of this Bureau; and in order to obtain data for the deductions that lead to improved designs for machinery, the Bureau has been compelled to seek such reliable information as could be procured from private sources.

The use of a steam-jacket upon the steam-cylinder, now an inherent part of the compound engine, is one of the means by which its economy is attained. This steam-jacket has recently been applied to the steam-cylinders of the ordinary simple type, carrying high steam and using a high grade of expansion, and an economy approaching that of the compound engine is claimed to have resulted.

In this connection the report of Chief Engineer B. F. Isherwood, (marked E) and that of Chief Engineer Charles H. Loring and Mr. C. E. Emery, (marked F) are herewith submitted. The former is on a series of experiments made in the year 1864 for Mr. George V. Hecker, and the latter is on the trial of the United States revenue steamer Gallatin, which took place during the current year. The results show large gains by the use of the steam-jacket under all the different conditions under

which it was tried, the economic efficiency of the jacketing increasing with the measure of expansion used, other things being equal.

Facilities have been afforded to the Treasury Department, by this Bureau, for conducting a series of experiments with safety-valves at the Washington navy-yard, under the direction of Mr. William Burnett, supervising inspector-general of the steamboat-inspection service. These experiments are of grave and serious importance to the country at large, and especially so to the traveling public, and to such as are directly engaged in the manufacture of steam-generators, and it has only been for want of funds that this Bureau has not made these experiments some years since.

I respectfully but earnestly suggest the importance of appropriating a yearly sum for the prosecution, under the cognizance of this Bureau, of such experiments as may be deemed proper by the honorable Secretary of the Navy.

Very respectfully, your obedient servant,

WM. W. W. WOOD,
Chief of Bureau.

Hon. GEO. M. ROBESON,
Secretary of the Navy.

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BUREAU OF CONSTRUCTION AND REPAIR.

NAVY DEPARTMENT,
BUREAU OF CONSTRUCTION AND REPAIR,
November 17, 1875.

SIR: I have the honor to inclose the estimated amount required for the annual expenditures coming under the cognizance of the Bureau of Construction and Repair, and also a list of vessels repaired, with the usual statement of contracts made, in compliance with your instructions.

The estimated amount required for construction and repair for the fiscal year ending the 30th of June, 1877, exceeds the yearly appropriation made for a few years past, for that purpose, by $600,000, and, in explanation, I beg leave to say that it will require all the amount recommended to keep those vessels that are worthy of being retained in the Navy in proper condition for sea-service.

It is well known that wooden vessels will rapidly deteriorate, and much more rapidly since steam has become the principal motive-power. The Navy has been changed entirely within the last twenty years, as regards fighting-vessels, from sail to steam power; consequently nearly if not quite double the expenditure is required to keep the same number of vessels in good condition.

In 1854 there were five steam-frigates, and one rebuilding; three side-wheel vessels, and one propeller of the fourth class; and four small steamers, and a tender; fifteen steam-vessels, and forty-eight sailing-vessels, classed from a line-of-battle ship down to a schooner, and which constituted the whole force of the United States Navy. At the present time we have seventy wooden and three iron steam cruising-vessels, twenty-three small iron and wooden steamers, with forty steam-launches.

In 1854 the appropriation for increase and repair was $2,534,950, and for 1874 was $3,300,000. In 1854 we had forty-eight sailing-vessels and fourteen steamers; and in 1874 we had one hundred and fifty-eight steamers, large and small, besides twenty-six sailing-vessels. It is necessary

in making a comparison of the costs of repairs in 1854 and in 1874 to notice also the difference in mechanics' wages and the number of working-hours. The wages paid mechanics in the former year averaged about $1.95 per day of ten hours; in 1874, the average was $2.87 per day of eight hours. It will readily be seen, from the facts above stated, that it will be impossible to keep the Navy in good condition for less than the amount asked for.

In the year 1871 there were fifty-two iron-clads upon the Naval Register; of these, three only were in proper condition for service. Twenty-two were light-draught monitors, insufficient in displacement to carry ordnance or stores, and entirely worthless as war-vessels—built by designs from an inexperienced amateur, in violation of well-known principles of naval architecture, and at a loss to the Government of many millions of dollars. Other nations have lost money in the same way, and yet we find, every day, men with a limited knowledge of naval architecture, and without any practical experience, aided by some draughtsman of limited capacity and knowledge, bringing forward designs of vessels upon principles long since discarded, and, while objecting to the examination of their designs by those competent to judge of their merits, are strenuously urging their adoption by the Government.

Four of the iron-clads of the largest dimensions were on the stocks, built of unseasoned white-oak timber, about one-half completed, and partially decayed. Three were river-vessels of small dimensions, and of no use as fighting-vessels for harbor defense. Six, lying at New Orleans, were condemned, not considered worth the cost of repairing. Fourteen of the best were constructed of iron hulls, but had wooden beams and decks, which were quite rotten, and wanting an additional free board. Of the whole number, only twenty-one were found to be worth repairing, and fourteen of these, before they could be sent to sea, required new decks of iron, to be raised up, and extensive repairs to be made to the machinery and boilers. Fourteen of the number above stated have been thoroughly and carefully repaired and improved, so that at the present time they are in excellent condition and ready for sea. Four of the twenty-one (the Monadnock and three others of her class) were built of white-oak timber, and were the most powerful of all the vessels in the Navy, but they had become very rotten and unserviceable. Iron frames for these vessels have been substituted for wood, and the plating of iron is nearly completed. The work upon these four iron-clads is well advanced, and, if the funds were available, they could be completed in a few months.

Plans for the alteration and repair of the Puritan have been prepared by the Bureau, and her repairs have been commenced.

Extensive repairs will soon be required upon the Dictator, and the Roanoke will require to be rebuilt.

It will be seen that at no time has the Navy been in such good and strong condition for harbor and coast defense as at the present time.

The power of our iron-clads for harbor and coast defense, where the fighting will be done in smooth water, must be considered equal, if not superior, to that of a large number of sea-going iron-clads of foreign nations. No type of vessel, if we except the Russian casemated circular iron-clad, has yet been designed which presents the same amount of resistance on the like draught of water as that of the monitor type. Their decks are near the water, which forms an impregnable resistance, and the turret, constructed to offer the largest amount of resistance in proportion to the amount of weight of material, presents the smallest

target for the enemy's shot. No officer in command of one of our monitors would hesitate to engage in action, in smooth water, any sea-going iron-clad vessel yet afloat, except, perhaps, a few of the latest type.

Since the year 1871, three of our very serviceable vessels, the Oneida, Saginaw, and Saranac, have been lost at sea, and twelve of our largest men-of-war have been broken up and sold. Two sailing-vessels have been repaired and turned over to the State authorities for school-ships, and six have been condemned and pronounced unworthy of repairs. Thus it will be seen that twenty-three cruising-vessels have gone out of the Navy since that time, and eight, mostly small vessels, have been constructed and added, leaving the Navy thirteen vessels short of the number at that time, or during the four years past. There are still others in commission which are deteriorated in such parts as will require too extensive repairs at the end of their present cruise to be of any further use to the service.

The usual appropriations are barely sufficient to keep those vessels worthy of repairs in good condition, and hence, to keep the present number in the Navy, additional appropriations must be made for the building of new vessels. The building of at least four new vessels is earnestly recommended, and is demanded by every reason that would require the Government to have a navy; justice to our nation, and our obligations to the civilized and christianized people of the world, call for it.

The science of naval architecture is steadily and constantly being more fully developed, and bringing into action greater power in the different elements which enter into the design of an efficient man-of-war, and requiring new mechanical inventions for their practical operation. Ordnance, steam-power, and the use of the torpedo are being changed and improved every day, all requiring new designs of vessels for development, and demanding of the naval architect careful and constant study; and the new designs embracing these improvements must be practically tested by the construction of new war-vessels to prove their value. No maritime nation can maintain a respectable position as a naval power without a yearly increase of naval vessels with modern improvements. It is only by the annual construction of vessels of war that the United States can command respect abroad, and maintain her well-known reputation of being the originator of the finest forms of naval vessels, and a type for other nations to copy.

By your direction, a board of naval constructors have visited the principal navy-yards on the Atlantic coast, and their report is herewith respectfully submitted. From their report it will be seen that there is on hand at the several yards, with the addition of about 200,000 cubic feet of live-oak timber, enough to build thirty-five vessels of war of medium size. Other kinds of timber and lumber are required, which should be purchased and carefully stored, that it may become properly seasoned before it is used in the construction of new vessels.

The Government, to be prepared for any emergency which may arise, must have on hand enough of well-seasoned timber to build seventy-five vessels at least, with dispatch, all of which could be built in six months if the materials were ready. The loss to the Government of many millions of dollars, by the building of vessels of unseasoned timber during the late war, is a sufficient reason why our navy-yards should be well supplied with seasoned material.

I beg leave to call your attention to the cost of labor in the United States, England, Germany, and France, which will explain the difference in maintaining a navy in the several governments. In the United

States, the average wages paid to mechanics at the several yards for the past five years has been $2.87 per day of eight hours; in England, the average has been $1.23 for nine hours; in Germany $1.09 for eleven hours; in France, 70 cents for twelve hours' work. The cost of materials used in building war-vessels in England, Germany, and France has not been over four-fifths of the cost of the same articles in the United States. It will be seen from the above that the cost of building ships of war in the United States must necessarily be double that in either of the countries above named; and if our Government should adopt the policy of England, of building 20,000 tons of war-vessels every year, at a cost of $10,000,000, an appropriation of at least $20,000,000, in addition to the amount required for the repairs and general maintenance of the Navy, would have to be made.

A tabular statement of the comparative power and qualities of the cruising-vessels of the United States with those of other nations is herewith submitted.

I have the honor to be, very respectfully, your obedient servant,

I. HANSCOM,
Chief of Bureau.

Hon. GEO. M. ROBESON,
Secretary of the Navy.

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MARINE CORPS.

UNITED STATES MARINE CORPS, COMMANDANT'S OFFICE,
Washington, D. C., November 8, 1875.

SIR: I have the honor to report to the Department that no change of importance has been made during the past year in the duties or employment of the Marine Corps.

The general return for the present month shows that the ranks are at present nearly up to the number allowed by Congress, and as recruits have been offering very freely, we have been enabled by selection, and without expense for recruiting, to obtain rather a better class of men than we have been receiving for some time past. About one-half the entire force is on board vessels in commission, and the remainder is distributed in about the usual proportions at the several shore-stations. At the regular annual inspections of the several commands on shore, the troops were found in perfect order, and their equipment, drill, &c., such as to reflect credit upon themselves and the service. The duties with which they have been charged have been faithfully performed, and the general conduct of the men, both on shore and at sea, has met the commendation of the naval officers in command. The several barracks, with the public property in charge of the corps, were also found in good condition, and will require nothing more than the ordinary attention and care during the coming year to keep them so. As the naval station at Philadelphia will shortly be removed from its present site in that city to League Island, provision should be made for the erection of permanent quarters for the marines at the latter place; and I would respectfully commend the subject to the attention of the Department in making its final arrangements for the transfer.

In submitting the annual report of the condition of the Marine Corps, I have on several former occasions referred to the want of a larger force of men at our more important naval stations; and as I am required to present such suggestions as I may deem the public interests require, in

connection with the corps, I again advert to this want of the service, simply as an act of duty. At the navy-yards at Boston, New York, Philadelphia, Norfolk, and Mare Island, California, there should be at least double the force of marines that can now be furnished with the present limited number of men allowed by Congress. In this belief I am sure the naval commandants at those stations entirely concur. I am aware that the present financial depression throughout the country would seem to demand a reduction rather than an increase of public expenditures, yet I feel convinced the people of the country would not object to the expense of five hundred additional privates, in order to keep this important branch of the naval service in its former state of usefulness and efficiency.

The estimates for the support of the corps for the coming year, submitted by the disbursing-officers of the staff, have been carefully prepared on the basis of existing laws, and vary but slightly in amount from the appropriations for the present fiscal year.

I am, very respectfully, your obedient servant,

J. ZEILIN,
Brigadier-General and Commandant.

Hon. GEORGE M. ROBESON,
Secretary of the Navy.

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PANAMA INTEROCEANIC SHIP-CANAL.

REPORT OF COMMANDER E. P. LULL.

WASHINGTON, D. C., *November* 20, 1875.

SIR: I have the honor to present the following report of the operations of the United States surveying expedition lately employed in seeking a route for an interoceanic canal through the Isthmus of Panama.

* * * * * * *

The following officers were attached to the expedition, viz: Commander Edward P. Lull, United States Navy, commanding; Civil Engineer A. G. Menocal, United States Navy, chief engineer; Lieut. Eugene H. C. Leutze, United States Navy; Lieut. H. G. O. Colby, United States Navy; Lieut. Edward W. Very, United States Navy; Lieut. Edward D. Taussig, United States Navy; Lieut. Jefferson F. Moser, United States Navy, (joined January 25;) Master John H. C. Coffin, United States Navy; Master Henry L. Greene, United States Navy; Assist. Surg. John F. Bransford, United States Navy; Assist. Paymaster Frank H. Clarke, United States Navy; Draughtsman James B. Philp; Commander's Clerk John E. Buck. Of these Messrs. Menocal, Leutze, and Moser were officers of large experience in this character of work, having served in several previous expeditions. Dr. Bransford and Mr. Buck had served in one of the Nicaraguan expeditions. Five intelligent young men were engaged to serve as rodmen, polemen, and chainmen.

The expedition was provided with the following instruments, the greater part of which had been used in previous surveys, viz: Two transits, three spirit-levels, two gradienters, three sextants, one artificial horizon, two pocket aneroid barometers for measuring heights, one current-meter, three 100 foot chains, one 50-foot chain, three binocular field-glasses, three sets of drawing-instruments, together with the necessary field note-books, stationery, drawing-materials, &c.

The outfit consisted of 36 shelter-tents, made of light duck, waterproofed, 36 mosquito-bars, 18 knapsacks, 21 rubber blankets, 15 rubber

pillows, 36 ship's hammocks, 36 canteens, 72 pairs of leggins, 100 pairs of shoes, 36 pots, pans, and spoons, 24 machetas, 6 axes, 6 hatchets, 6 camp-kettles, 6 frying-pans, 2 geologist's hammers, 4 lanterns, 2 dozen porcelain-lined iron plates, &c.

Of provisions there were only provided "soup and bouilli," tomato soup, sugar, coffee, and candles, and a small quantity of condensed milk, as the locality in which we were to work was near enough to the cities of Aspinwall and Panama to enable us to procure all other required articles from them.

The expedition sailed (with the exception of Lieutenant Moser, ordered to proceed in the following steamer,) January 5, 1875, in the Pacific Mail Steamship Acapulco from New York, and arrived in Aspinwall on the 14th of the same month. Through the courtesy of Mr. William Thompson, the superintendent of the Panama Railroad, there was put at our service, without cost, a store-room into which all the property of the expedition was placed until needed.

It was resolved to place two parties in the field, and these were organized at once.

Party No. 1 consisted of the following officers and others: Lieut. E. H. C. Leutze, commanding; Lieut. E. W. Very in charge of transit; Master J. H. Coffin, in charge of spirit-level; H. S. Fleming, rodman; Mancel Philp, chainman; Chas. A. Smith, poleman.

Party No. 2 consisted of: Lieut. H. G. O. Colby, commanding; Lieut. E. D. Taussig, in charge of transit; Master H. L. Greene, in charge of spirit-level; Clerk J. E. Buck to lead the line; J. H. Westerfield, chainman; Robert S. Burnett, rodman.

This arrangement continued until the arrival, on the 25th of the same month, of Mr. Moser, who immediately took charge of the level in Lieutenant Colby's party, and Mr. Greene was transferred to that of Lieutenant Leutze, where he was placed at the head of the line. The paymaster and draughtsman were stationed at Aspinwall, which was made a depot of supplies. This arrangement left the commanding officer, the chief engineer, and Dr. Bransford free to move from party to party, as occasion required.

THE PROBLEM.

It having been concluded, from our previous knowledge of the best profile obtainable across the Isthmus of Panama, that a slit cut from tide-water to tide-water, or, in other words, a canal without locks, was impracticable, at least in a commercial sense, and consequently that water for the canal must be drawn from some other source than the seas themselves, the question of water-supply became, as your instructions state, the first and most important point to be considered, for unless that could be satisfactorily solved, no other question need be considered at all. The requirements were an ample supply at the dryest season of the year, and an ample escape for the superabundant waters at other times, which latter phase of the subject was quite as important as the former. After fulfilling these conditions, the next part of the problem was to obtain the most favorable location for the line, combining the question of profile, distance, the avoidance of insurmountable obstructions, and the debouchment into harbors or localities where harbors could be built at cost within the limits of commercial practicability.

The character of the excavation and the supply of materials for construction were important though subordinate questions.

As is well known, a railroad exists between the ports of Aspinwall or

Colon, on the Caribbean, and Panama, on the Pacific. This road was built after a careful and exhaustive survey made by several eminent American engineers, and doubtless its profile is the most favorable for a railroad that could be found. The surveys upon which the road was constructed had developed a knowledge of the topography of that portion of the isthmus to a degree that saved us a vast deal of work which had attended most other expeditions for the same purpose, viz, the elimination of lines more or less promising, and which have to be examined at least far enough to demonstrate their impracticability. The rivers, including many of the small mountain-streams, were located both upon the published maps and upon the plans in possession of the railroad company with a tolerable degree of accuracy, and the coast-line on either side was well located upon marine charts. Mr. Thompson, the superintendent of the road, and his successor, Mr. White, (who, by the way, had been our fellow-passenger in the Acapulco,) kindly placed at our disposal all of the maps, plans, and profiles in their possession.

By a glance at the map it will be seen that the general trend of the Isthmus of Panama is east and west, the port of Panama lying almost southeast of Aspinwall. The river Chagres takes its rise somewhere in the vicinity of San Blas, (its exact source is not known,) flows in a generally west-southwest direction until it reaches the village of Matachin, near which it turns to the northwest and flows in a tortuous course to the Caribbean, its mouth being some seven miles from Aspinwall. This river is the only source from which an adequate supply of water can be obtained for a canal, and indeed it was much doubted by most persons familiar with it whether in the dry season even that source could be depended upon. To this river, then, or nowhere were we to look for the solution of the first point of our problem.

The question of the termini had next to be looked to. The bay of Aspinwall, or Navy Bay as it is called upon the old charts, although exposed to northers, which are fortunately rare upon the coast, is a harbor reasonably secure from the prevailing northeast trade-winds. It is very commodious, and could easily be rendered entirely safe in all weathers.

There is no harbor within accessible distance to the westward of Aspinwall or any chance of constructing one without enormous cost. The mouth of the Chagres can only be entered by coasters of the smallest class. To the eastward, and distant some eighteen miles from Aspinwall, there is the beautiful harbor of Porto Bello. Our choice for an Atlantic terminus lay between these two harbors, and the reasons which decided us upon which one to choose will be given further on. On the Pacific we had the great bay of Panama into which to debouch at any point where it should prove most advantageous.

In 1843 a plan was published by Mons. Garrella, a French engineer, for a canal across the isthmus, and which is thus described by Rear-Admiral Davis in his report to Congress on the subject of interoceanic canals, 1866:

> This route was selected only after a careful inspection of the intervening space, and after making the requisite levelings. It will be seen by this map that he follows the valleys of Bernardino and Caimito on the southern descent, and those of Inebrado and Chagres on the northern. The mountainous region approaches very near the Pacific, and its highest elevation is 459 feet above the level of the sea. He tunnels the mountain at about 99 meters (324 feet 9 inches) below its highest point; and he establishes his summit-level for a distance of 25,361 feet at an elevation of 135 feet above high-water from the Pacific Ocean. From this summit-level he descends to the Pacific Ocean by means of seventeen locks, some of which are necessarily very much crowded. On the other side he descends to the Atlantic by eighteen locks, which, owing to the more gradual descent on the north, are more conveniently spaced.
>
> It is remarked by the commissioners of the "ponts et chaussées," appointed to re-

port on Mr. Garrella's project, that his mode of proceeding is reasonable, and entirely in conformity with the rules of art.

A glance at the plan and profile shows that the near approach of the chain of the Andes to the Pacific Ocean obliges him to pursue the course he has adopted. Of the whole length of the summit-level, 17,550 feet are subterranean; and, as the commission observes, this is not only inconvenient to vessels, but it involves great expense, since the tunnel must be sufficiently high to allow vessels to pass through with their lower masts, at least, standing.

The means of feeding the canal are not satisfactorily stated. The river Chagres was gauged, it is true, at Cruces and at Gorgona, but the river is to be tapped above these points. Provision is also made for an auxiliary reservoir; still, the commission is not satisfied on this question.

The harbors which form the termini of the canal are, on the Atlantic side, Navy Bay, and on the Pacific side the bay of Vaca del Monte.

Garrella proposed to use the bed of the Chagres for a portion of the distance; and in order to reduce his profile, proposed to occupy the valleys of small streams without making provisions for the waters of these streams except by receiving them into the canal. His plan was based upon very limited knowledge of the topography of the country; and, in the light of our present information, has not a feature worth considering.

Much more recently, during or after the construction of the railroad, plans and estimates were made by Colonel Totten, the distinguished chief engineer of the road, for a canal to be located in the vicinity of the road itself, and drawing its waters from the Chagres by means of a feeder. Colonel Totten's estimates were furnished me by Commodore Ammen, chief of the Bureau of Navigation, and also by Prof. J. E. Nourse, United States Navy. No maps or profiles, however, could be obtained showing the exact location. A few pencil lines upon one of the maps lent us by the superintendent of the road, were supposed by him to indicate Colonel Totten's line; but as our own subsequent location differed from it very materially, I was led to doubt whether this was the case. Nor have I been able to ascertain whether Colonel Totten actually made a survey for the canal route, or whether this estimate was made upon his knowledge of the topography obtained during the survey of the road. In the absence of this information, we were obliged to locate our line altogether for ourselves, as much so as if no plan had ever been proposed by him.

PRELIMINARY RECONNAISSANCE.

January 16, Mr. Menocal and myself, taking with us maps and profiles, passed over the line of the railroad on a general reconnaissance, with a view of acquiring such information as we could before laying out the work of the expedition.

By examining numerous high-water marks, we found that the river Chagres, at that time at its low stage, was subject to freshets which elevated its surface not less, in extreme cases, than 40 feet. All idea, therefore, of making a combined use of its bed and of independent canal for ship navigation as proposed by Mr. Garrella, had to be abandoned at once, particularly in view of the great suddenness of these freshets.

We had already decided that the Atlantic terminus must be to the eastward of the mouth of the Chagres; this involved the necessity of the canal's crossing the river, and one of the main objects of our reconnaissance was to determine approximately where the crossing should be. As the enormous variation in the amount of the river flow precluded the possibility of receiving its waters directly into the canal, an aqueduct—or probably a better term would be viaduct—had to be provided for,

through culverts under which, the waters of the river should pass. The culverts must be made of sufficient dimensions to pass the water at its highest stage. A brief computation showed what must be the difference of level between the surface of the water in the proposed viaduct and the surface of the river at its then stage, thus:

	Feet.
For rise of river	35
Spring of arch of culvert	15
Thickness of wall over crown of arch	6
Depth of water in viaduct	26
Total	82

The summit elevation of the canal could, therefore, not be less than 82 feet above that of the river at the point of crossing, computing from the lowest stage of the water in the river. All references to the level of the river surface will hereafter refer to that stage, unless otherwise specified.

By referring to the profile of the railroad we found that the river at the great bend near Matachin and just above the confluence with the river Obispo, was approximately 42 feet above mean half-tide of either sea; this added to the 82 feet would make, should that point be chosen for the crossing, 124 feet as the summit level of the canal. An elevation of 124 feet would involve at least twelve lift-locks on either side, or twenty-four in all. This we regarded as the greatest number admissible, particularly in comparing the line with that through Nicaragua, where only ten of a side were required. This decided us that we could not go any higher up the river, or in other words that the line, at least at the point of crossing, could not be carried any farther to the eastward. A direct line drawn from Porto Bello to Panama would pass considerably to the eastward of this point, and a line drawn from this point to Porto Bello would be several miles longer than one drawn to Navy Bay or Aspinwall. In addition to this argument in favor of the selection of Aspinwall, was the unmistakable evidence that a much higher profile would be found in the direction of Porto Bello, which existed in the fact that the Chagres received numerous not inconsiderable tributaries from that direction, and known to take their rise far to the eastward.

This locality presented some other features favorable for a point of crossing, mainly in the conformation of the ground on either side. The profile of the cross-section showed good abutments for the ends of the viaducts and at the same time ample room in the valley of the stream for the construction of culverts for the escape of the river-flow. The exact point was of course not chosen until several cross-sections had been taken, but the immediate vicinity of the bend was determined upon at the first reconnaissance as the place in which to seek for it. The bend is on the Atlantic slope of the Cordillera, and, on the line of the railroad, is but six miles from the dividing summit.

Passing the divide we found the descent of the Pacific slope quite rapid, and by examining the profile of the railroad it appeared that with a summit-level of 124 feet we should have a deep cut of but little more than five miles in length, even if we could not improve on that profile, which we hoped to do. A lower summit-level would, of course, increase the length of the deep cut, which consideration added to our determination not to seek a lower point of the river for crossing.

Having completed our preliminary examination, we proceeded to Panama to make arrangements for procuring laborers to act as *macheteros* or

choppers, and some supplies. Calling upon an old personal friend of my own, Mr. Henry Lewis, we were by him introduced to Messrs. Dellatorre & Co., resident merchants, whose kind offices he solicited for us. These gentlemen, both in a business way and through personal attentions of two members of the house, Mr. Dellatorre and Don Geraldo Lewis, facilitated us in every manner in their power during the whole time of our stay upon the Isthmus, and put us under many lasting obligations.

I also took occasion to call upon Dr. Long, the United States consul, to ask him to notify the President of Panama of the arrival of the expedition, and to ask the President to appoint a day when I could call upon him and pay my respects.

On the following Monday, January 18, I called upon the President, with the consul, and explained briefly my instructions. The President expressed himself very much pleased with the object of the expedition, and the interest of the United States in prosecuting the work, and offered us every facility in our labors. This offer he afterward made good by directing the alcaldes of the various districts through which we were to pass to aid us in any manner in their power. We had no occasion, however, to avail ourselves of their assistance.

In the mean time Lieutenants Leutze and Colby were completing the organizations of their parties, issuing instruments, outfits, &c., and the officers in charge of the transits and levels were employed in adjusting their instruments, and in running a few trial-lines to drill their assistants, &c. Four days were thus spent, making each person entirely familiar with his work.

BEGINNING OF OPERATIONS.

January 20, having procured through Messrs. Dellatorre & Co. the necessary number of macheteros, I proceeded with them to Matachin, where I was met, by previous arrangement, by Messrs. Leutze and Colby, with their parties, camp-equipments, &c. A camp was formed in common by the two parties, on the bank of the Chagres, about a mile above Matachin, near where we proposed to begin work. The encampment was called "Camp Ammen," in honor of the Chief of the Bureau of Navigation, for the great interest taken by him in the interoceanic canal question, and the assistance he had rendered to the various expeditions employed in attempting its solution.

To each party were now attached, in addition to the officers and assistants already mentioned, one cook, one servant, and nine macheteros, this having been found by our experience in former expeditions to be the minimum number consistent with efficiency. A whole day was devoted to the construction of the first camp, in order to thoroughly instruct those persons who had not served before; good shelter at night and a comfortable place in which to sleep being very important elements in the preservation of health, and, consequently, of efficiency. It was wonderful how expert each officer and man afterward, and very soon, became in erecting tents, &c. A ridge-pole and two side-poles, supported on forked stakes, properly braced, and the whole tied together with the tough flexible vines which abound throughout the region, formed the frame-work over which a shelter-tent was stretched, usually large enough to accommodate four persons. For a sleeping arrangement, each person was supplied with a ship's hammock, to each side of which was attached a stout pole; between the ends of the side-poles, short pieces called spreaders were secured to hold the hammock out flat or nearly so; four forked stakes of convenient height driven into the

ground supported the whole. A mosquito-bar, an India-rubber blanket and pillow, and a pair of woolen blankets, completed the affair, and an exceedingly comfortable bed it made. As was the case in Nicaragua, we seldom found a night, while in the interior, when it was warm enough to sleep without blankets. The natives—employed as macheteros—generally preferred rolling themselves up in their blankets, and sleeping upon the ground, to taking any trouble in preparing a bed.

After a thorough local reconnaissance, conducted by Mr. Menocal, cross-sections were taken, and the exact site of the viaduct selected. The stream was gauged at the same time, using a delicate current-meter for testing the velocities at different points in the cross-section. The daily discharge was found to be 87,350,400 cubic feet.

It was then decided that Lieutenant Leutze, with party No. 1, should locate the feeder. For this purpose, he was instructed to run the traverse and levels up the river Chagres, following its bed until he should find an elevation, at the surface of the water above the water-surface at the site of the viaduct, of 87 feet plus 1 foot for each mile of distance from the starting-point, or until he should find a good location for a dam, by which the waters could be raised to that elevation. If this last could be done, as it was hoped and afterward shown that it could be, it would of course materially diminish the length of the feeder. It might here be explained that the valley of the river is inclosed on either side by numerous ranges of hills, sometimes approaching the river-banks and again receding from it.

At the site of the proposed viaduct the valley is so narrow that the length of the viaduct would require to be but 1,600 feet; an equally favorable location for the dam was the object of Mr. Leutze's search. On succeeding in this, he was to return on a grade-line, if possible, until he should intersect the line of the canal itself, striving to make the shortest distance consistent with the retention of the grade, which was to begin at the level to which it was proposed to raise the water-surface of the river, and to descend gradually until the proposed level of the canal was reached at the intersection.

To Lieutenant Colby and his party was assigned the work of locating the canal between the end of the viaduct and Panama Bay.

As it could not be told what difficulties would be met with by either party, it could not be predicted which would finish first the work now in hand; the division of what remained was, therefore, left for future consideration.

In planning the work, as in all other matters relating to the survey, Mr. Menocal was freely consulted, and his advice as freely taken, always to the securing of the best results in the obtaining of information with the most economical expenditure of time and labor.

As a test of the accuracy of the levelers, upon whose work so much depended, before starting upon the main lines, each was required to run a line from the water's edge, at the site of the viaduct, establishing an initial bench-mark, to the railroad-track near Matachin, a distance of about a mile, and to return to the starting-point. Their results differed by less than two-tenths of an inch from each other and from coincidence with the level of the bench.

One or two mishaps occurred at the outset, such as the breaking of a tripod and the bending of a vernier-arm, each of which caused a little delay, but by the end of three or four days the parties were fairly under way and making good progress.

Lieutenant Leutze's party followed the bed of the river generally, but cutting off the bends whenever possible, in order to shorten the distance.

This involved crossing the stream very often. The current in many places was quite strong, with occasional rapids. The water varied in depth from a few inches to 15 and 20 feet, making it very laborious for the party. Much greater progress could be made in the river, however, than by cutting a trail on shore, and for that reason it was followed. After one or two days' work, the party began to accomplish from 10,000 to 12,000 feet per day.

Lieutenant Colby's party started on a general compass-course of south 29° east, toward a point which had been chosen for crossing the divide, with directions to make the best profile possible; in other words, to follow a line which could give the least depth of excavation except when to do so would so greatly increase the distance as to counterbalance or more than counterbalance the gain, to adjust which points often requires the greatest judgment and care.

After passing the ridge of high ground immediately adjacent to the river, and upon which the viaduct was to abut, the line fell into a valley where the ground was found very much below the level proposed for the viaduct. We had determined, for reasons already given, to make this the summit-level of the canal, and consequently to carry it through the divide until it intersected the surface on the opposite, or Pacific slope. It therefore seemed as if a considerable detour to the left would have to be made to keep on the grade-line, or else that the low land would have to be crossed by means of a second viaduct. After some further examination in various directions, it was found that they were in a valley opening to the right, but toward the left ascending until it was finally lost at the junction of the two ridges which formed it. Continuing the line 1,970 feet, the grade-level was again reached. It should here be explained that the line was running through a dense forest, with the usual interlacing of vines, undergrowth, &c., a trail having to be cleared with the machetas for every rod of advance, so that it was seldom that the eye could penetrate a dozen yards in any direction.

It was only, therefore, by the laborious process of running trail-lines in various directions, cutting one's way through the jungle, that any idea of the immediate conformation of the ground could be obtained. These reconnaissances were made with the pocket aneroid barometers and with pocket-compasses. Each officer was supplied with a heavy sheath-knife, without the vigorous use of which it was frequently impossible to move at all, so intricate is the net-work of tough flexible vines; a tree of considerable size, when cut down, will often be kept from falling by being attached to others by these vines, to the no small annoyance of the chopper.

After obtaining a knowledge of the formation of the valley above spoken of, Mr. Menocal proposed as a substitute for the viaduct across it, to inclose it with a dike on one side, making a basin of 22 acres in extent; later, lines of levels were run for the location of the dike, which will be found estimated for. By this ingenious device, what seemed at first an obstacle which it would be very expensive to overcome, would be converted at moderate cost into a very desirable inland harbor.

This is but one of the numerous instances, both here and in the Nicaragua line, where the judgment, the engineering skill, and the untiring energy of Mr. Menocal have found remedies for our greatest apparent difficulties.

As has been said, the party was following in general a compass-course. Frequent reconnaissances had to be made to insure preserving the best profile, and deflections were made from the general course whenever it seemed advantageous. Several offsets a day were made to the right and

to the left, for greater or less distances, to give as much as possible of the contours of the ground; the former were generally extended to the railroad-track. The reconnaissances were generally made by the chief of the party, accompanied by the chief engineer or the commanding officer, when present. With every precaution, it was occasionally found that the line was running into ground so unfavorable that it was necessary to go back for a distance and make a fresh start in a new direction.

By January 29, each party had extended its line so far that it was necessary to move camp. Striking tents, Mr. Leutze, by means of canoes, proceeded some eight miles up the river, and established his party at "Camp Marguerita." The canoes being deeply laden, were forced up with considerable difficulty against the strong current in the various rapids. Mr. Leutze had acquired great skill in handling boats under similar circumstances, during the Nicaragua expeditions, and succeeded in rapidly overcoming these difficulties, as he usually did in cases requiring the exercise of will, good judgment, and muscular force. Camp Marguerita was located some distance in advance of the head of the line, this being our invariable custom in moving camp, so that each of the next two or three days' work should bring the party at night nearer and nearer to their temporary home; then, passing it, a few days' further advance would make another move necessary.

Through the courtesy of Superintendent White, there was placed at the disposal of Mr. Colby and party, at Empire station, an unoccupied dwelling belonging to the railroad company. One of these exists at each four miles of road, having been formerly occupied by track-masters, now discontinued. Empire being at a convenient distance from the end of Mr. Colby's line, and the station-house having ample room to lodge his whole party, he was saved the time and trouble of erecting his tents. The moving was accomplished by means of canoes to Matachin, and thence by rail to Empire.

On the 4th of February, both parties progressing favorably, Mr. Menocal and myself went to Panama to make such examination as was necessary to determine at what point the line could advantageously debouch into the Bay of Panama. There is a good chart of the bay upon surveys made by English officers, and with that, and by making such soundings as we found necessary, we finally concluded that the most suitable point for debouchment would be about one-quarter of a mile to the eastward of the railroad company's wharf, and some mile and a half east of the city of Panama. The chief advantages of this point are, the easy approach from the point of crossing the divide; the proximity of deep water to the shore; the remoteness of any river-mouth to discharge detritus, and thus form obstructions; and the existence of a straight channel out to deep water, and not obstructed by reefs. We were indebted for some valuable information to Capt. John M. Dow, of the Pacific Mail Steamship Company, an accomplished navigator, and naturalist as well, and who, in the pursuit of both these callings for many years in the vicinity, has gained a most thorough knowledge of the hydrography of the Bay of Panama.

February 4, Lieutenant Leutze's traverse had advanced so far up the river that he was again obliged to move camp some seven miles. Each move was found to be more troublesome than the last, the current of the stream becoming stronger and the rapids more frequent.

About three miles above the site of the first camp, is the village Cruces, now containing some three or four hundred inhabitants. It is very old, having been built by the early Spanish occupants of the land. Notwithstanding its proximity to Matachin, the nearest railroad-station, it

has to that point no sign of a road, all communication being by water. Above Cruces, at least as far as our line extended, there are only here and there a few huts, and scarcely a vestige of cultivated ground. Very little could be purchased in the way of provisions, except milk, eggs, and occasionally a chicken, and these not always. Nearly everything in the shape of supplies had to be forwarded from Panama or Aspinwall.

By February 9, Lieutenant Leutze's line had reached a point on the river which he regarded as suitable for the erection of a dam; and Lieutenant Colby's party was in close proximity to the divide. Mr. Menocal proceeded to join Mr. Leutze to aid in the selection of the exact location of the dam, and to procure such local information as was needed. On the same day, Lieutenant Very, in attempting to pass one of the rapids, was swept away by the powerful current, losing his transit-book, which involved the necessity of going back and retaking the lost angles. Fortunately, all the station-marks had been preserved.

Thorough local reconnaissances were made during the next two or three days by Messrs. Leutze and Menocal. Cross-sections of the river and its immediate valley, and gauges of the stream, were taken. A capital site was chosen for the dam, a solid rock foundation and precipitous rocky banks for abutments on either side. The next object to be sought was a good starting-point for the feeder, which the immediate vicinity of the dam did not offer. The general character of the valley showed that the best location could be obtained on the left, *i. e.*, the southern bank. Nearly the whole of the 11th was spent in seeking a break in the wall of the rock forming the bank, but without success. On the 12th, at a distance of 4,800 feet from the site of the dam, an eligible spot was found. The traverse in ascending had taken so sharp a curve around the southward and westward (Lieutenant Very having extended the survey up to that point) that the initial point of the feeder was really nearer to the main line of the canal than the site of the dam.

Lieutenant Leutze and party now began their return on the grade-line. So devious were the contours of the surface that a great deal of care and good judgment had to be exercised, reconnoitering constantly ahead, the problem made much the more troublesome, as has been explained, referring to Lieutenant Colby's line, from the fact that so little could be seen at a time. Generally at the end of each day's work an offset was cut to the river-bank, checking the work and saving long distances in returning to camp, and in gaining the line the following morning. It was a never-ending source of astonishment to the natives that the officers could start from a point in the dense forest and lead them so directly to the river-bank, and even directly to the camps when the distance was not too great.

In the mean time Lieutenant Colby with his party, accompanied by myself, was carrying his line across the divide. The railroad in passing the summit makes a sharp curve around a hill, or between two hills, by which location a comparatively low pass was obtained; the curve was, however, of too small radius for a ship-canal. To avoid this our line was carried across a somewhat higher ridge, though still through a considerable depression. To compensate for the increased height was a considerably decreased distance.

On the evening of the 9th, young Mr. Westerfield, the chainman, was taken down with quite a sharp attack of fever, having overtasked his strength. On the following day Dr. Bransford joined the party, having left Mr. Leutze's camp the day before. His arrival was very opportune, for a few hours afterward an old negro employed as cook was seized with a congestive chill, of which he died within twenty-four hours, not-

withstanding the utmost exertion on the part of the doctor. The poor old fellow had, by his manner of living, completely exhausted his vital forces, and did not rally in the least from the moment he was attacked; the strongest mustard-plasters placed on his wrists and kept there until he was dead failed to produce the least inflammation. Dr. Bransford had shown himself, during the Nicaragua expedition, to be a master in the management of malarious attacks, and although we had two or three quite obstinate cases during our present expedition, this was the only one which failed to yield to his treatment. Young Westerfield was thoroughly well in a few days.

The divide was actually crossed on the 12th and the descent to the Pacific begun. A new compass-course was taken and followed, as before, as nearly as the conformation would admit of its being done. A good deal of trouble was experienced, in both parties, with the natives employed as macheteros, many of whom proved very worthless, feigning sickness, &c.; but by a judicious sifting process each party soon secured a good set of men, who continued to serve till the end of the survey.

February 16, Mr. Menocal came to Lieutenant Colby's party, and I proceeded to that of Lieutenant Leutze, in order that each might see the important portions of the work that the two parties had just completed. Lieutenant Leutze having made some little progress, on his return had shifted his encampment down the river and established "Camp Sunnyside."

As I arrived in camp, one of the men, in attempting to open a box, cut his arm very badly with a hatchet. The doctor being with the other party at the Empire station, Mr. Leutze and myself did all in our power to check the profuse bleeding of the wound; but finding our success was only temporary, we were finally obliged to put the man into a canoe, in charge of Mr. Greene, who carried him down the river to Matachin, and thence by a hand-car to Empire. This determined me to make application for a second medical officer, in order that one might be present with each party, which I did by the next mail. The Department sent to us Dr. Chiola, who arrived by return steamer.

Both parties were now making favorable progress; Mr. Leutze unfortunately suffering from occasional attacks of fever, but refusing to give himself sufficient rest to recover from it. He had contracted the fever by overwork and exposure in the Nicaragua expedition, and really ought not to have joined a new survey, but that his zeal overmastered his prudence.

On the 17th, Mr. Colby was taken down with the fever, having also considerably overtasked his strength; the labor for the chiefs of the parties being necessarily very severe, and neither sparing himself in the least. A couple of days under Dr. Bransford's care brought Mr. Colby around, though he was not actually fit for duty for several days, and commenced work much sooner than he ought, but fortunately no harm resulted from it.

On the 18th the doctor, with the cooks, shifted camp to Rio Grande station, eight miles from Empire, where another of the track-master's cottages was put at the disposal of the party.

Lieutenant Taussig continuing the survey with the remainder of the party, no time was lost in the operation of moving. This party operating in the valley of the Rio Grande, a dirty stream emptying into the Bay of Panama, some two miles west of the city, and was making excellent progress toward the debouchment, the line crossing the stream frequently and running through swampy ground.

February 19, Lieutenant Taussig was taken with the fever, suffering

one of the severest and most obstinate attacks that was experienced by any of the party. Mr. Menocal being present, took charge of the transit and Lieutenant Moser of the line, so that the work was kept going.

February 24, the line was extended to the beach, at the point already chosen for the entrance into Panama Bay.

On the following day the camp was shifted to Obispo station, near Matachin, preparatory to making the detailed local examination for the artificial basin already spoken of. A couple of days were then given to officers and men for a much-needed rest.

On consultation with Mr. Menocal it was now determined to reserve for Lieutenant Lentze's party the section of the Atlantic division between the viaduct and Barbacoas, about twenty-one miles from Aspinwall, and to give to Mr. Colby's party from Barbacoas to Aspinwall.

By March 1, Mr. Colby's party had completed the detailed survey of the site of the basin, and had shifted camp to Frijoles, near the initial point of their new line. On the following day they established bench and station marks, and began their line.

In Mr. Lentze's party the work of locating the feeder was being prosecuted with varying success. On the 23d of February the valley of the Chilibri, a tributary of the Chagres, was reached; here the level suddenly dropped to 22 feet below the grade line. The valley was found to be some 3,000 feet wide. Two or three days were spent in trying to find a point, by ascending the stream, where the valley was enough narrower to compensate for the increased distance in reaching the point, but without success. Camp was shifted on the 24th to a position just below the mouth of the Chilibri, and called Camp Hunter.

In making the reconnaissances a clearing was found on the top of a hill overlooking the valley for miles up. Lieutenant Very climbed to the roof of a hut in the center of the clearing, from which he was able to get an excellent idea of the general topography. This was one of the few spots found during the whole survey offering any such advantage, trial lines being as a general rule our only guides in cases of doubt. The low level of the valley was a serious obstacle, as the water would have to be carried across it either by an aqueduct, or else by inverted siphons. It seeming to be inevitable, Mr. Lentze had no alternative but to cross it at the narrowest place, without deflecting his line in any great degree, and to continue.

March 26, Mr. Coffin was sent to Mr. Colby's for treatment for an abscess, Mr. Greene taking charge of the level.

On the 1st of March, joining Mr. Lentze myself, (a slight touch of fever having prevented my doing so before,) we turned back to the Chilibri again in order to exhaust the subject thoroughly before giving up the attempt to avoid the low ground, or at least to diminish the length of the crossing. Three days were spent in the effort, which was finally abandoned as impossible.

Mr. Lentze now resumed the grade, following it as nearly as possible. On the 10th he shifted his party to Camp Ammen, which he re-established. On the 11th, Acting Assistant Surgeon T. Chiola, U. S. N., having arrived on the 9th and reported for duty, was assigned to Mr. Lentze's party. Mr. Lentze, being sadly in need of medical treatment, went the same day to Mr. Colby's camp to place himself in Dr. Bransford's hands, remaining for two or three days.

March 15, Mr. Lentze brought the line of the feeder to an intersection with the line of the canal, debouching into the proposed artificial basin. Gauging the flow of the Chagres, he found the discharge to be 647 cubic

feet per second—a considerable diminution since January 23, owing to the advance of the dry season.

On the following day the survey of the main line from the viaduct to the initial point of Mr. Colby's line was begun. The distance to be made was, in a straight line, but about eight miles, but was through rough and broken country, requiring exceedingly careful examination.

The other party were in the mean time making very good progress seeking the shortest distance consistent with a good profile; the usual number of reconnaissances, offsets, trial lines, &c., being made to secure that end. On the 10th of March camp was shifted to the residence at Bohio station, which, except for the lack of good water, was one of the most comfortable locations thus far occupied.

Mr. Menocal and myself, with Dr. Bransford and Paymaster Clark, now prepared to make the reconnaissance of the Bayano or Chepo River, required by your instructions. For this purpose, through the assistance of Mr. Theodore J. DeSabla, a merchant of Panama, and formerly United States vice-consul for that port, a small schooner was procured, the only means of transportation available. The schooner was the property of Dr. Kratochvil, a gentleman who had spent a fortune some years before in the establishment of a sugar-estate about twenty miles up the Bayano, and which, owing to the lack of laborers, he had been obliged to stop operating. His little vessel was now running between his place and Panama with dye and furniture woods, and also with wood for fuel.

Embarking the evening of the 15th of March, we reached the mouth of the Bayano on the following morning. Getting into an anchorage just at the last of the flood, we were obliged to come to and wait for the next flood before proceeding up the river. We took occasion to make such soundings as we needed inside the bar. There is a village of some twenty cane huts at the mouth of the river, called Boca del Bayano. At the turn of the tide we got under way and proceeded up the river some six miles, sounding as we went. We then dropped anchor till daylight; got under way again and carried our soundings ten miles farther up, when the tide again turned ebb, and the schooner was obliged to come to. We now took a wretched little canoe and in her continued on three miles farther, to the estate of Dr. Kratochvil.

We were very hospitably received by the doctor, who gave us pleasant quarters and regaled us with all that his place afforded—abundance of fruit and vegetables, and, what was quite a new experience for each of us, with the flesh of the tapir, which we found very delicate and palatable.

It was a sad sight to see so magnificent a place, with fine buildings, abundant machinery, and other facilities, lying idle and going to ruin for want of hands to work it. Notwithstanding the lack of laborers for the cane-field, there were quite a large number of retainers about the place, wood-cutters, gardeners, India-rubber hunters, &c., all more or less dependent upon the doctor, and, surrounded by them and their families, and his own children, with a large library, and enough to live comfortably upon, he seemed to be very well contented with his lot, and although regretting the failure of his great enterprise, did not let it make him unhappy.

We passed the remainder of the day of our arrival and all of the following in collecting such further information as was required. Mr. Menocal and myself went in a canoe some miles farther up the river. Thus far we found no point where a dam could be built, the banks being low and swampy. Occasionally high ground approached one bank or the other, but never on both sides at once. The banks were alluvial, except

in the few cases already mentioned, and these were not met within fifteen miles of the mouth. Our soundings had shown from 25 to 30 feet of water in the channel for the first three miles from the mouth, then frequent bars with 10 feet, 8 feet, and finally not more than 4 feet, these growing more and more frequent and longer as we ascended the river. Just above Dr. Kratochvil's place we found a solid gravel bar some three-quarters of a mile in length, with scarcely water enough to float a canoe. Most of the others were composed mainly of mud, which is also deposited in large outlying flats off the mouth of the river. A strong tidal current at all times, and overwhelming floods during the rainy season, would render abortive any attempt to dredge a channel in this stream, while up to the highest point visited by us, as said above, no location existed for a dam, by which to produce slack-water navigation. We concluded that further examination, except at the river mouth, was unnecessary.

Desiring to know a little more of the harbor-bar, Mr. Menocal, Dr. Bransford, and myself, bidding good-bye to our hospitable host, Dr. Kratochvil, started in a canoe, at 3.30 on the morning of the 19th, for Boca del Bayano, which we wanted to reach by 8 o'clock, (when the tide would be at the lowest, and also to take advantage of the usual morning calm.) This, by the help of the ebb and by vigorous paddling, we accomplished. A very disagreeable trip it was, too, in the chill night-air. The banks of the river, left dripping and slimy by the falling tide, added to the unpleasant effect. The doctor administered to each of us and took himself a five-grain dose of quinine to ward off fever, which he thought we stood a good chance of contracting.

Arrived at the village of Boca del Bayano we set up a tide-gauge, which the doctor took charge of. Mr. Menocal and myself procured some fresh hands for our canoe and went out to the bar to sound. A pull of two hours against the incoming tide brought us to the bar, upon which we found a depth of but 12 feet, (reducing to low water.) The mud-flats, already spoken of, extended for several miles in each direction. The bar, which is said to be a shifting one, (as is altogether probable from its character,) lay at the time of our visit near the island of Chepillo, and about two miles from the mouth proper of the river.

Turning back we encountered the land-breeze, now quite brisk, and a little toppling sea made by its opposition to the incoming tide. Our pull back to the beach consumed another two hours. We were drenched to the skin before we landed, and hungry enough not to criticise the breakfast prepared for us by the wife of the alcalde. We had not had time to breakfast before starting for the bar.

Toward evening Paymaster Clark joined us with the schooner, and we embarked for Panama, where we arrived at midnight on the 20th.

Regarding the route from the mouth of the Bayano to the Gulf of San Blas, two careful surveys, one under the auspices of Mr. Frederick W. Kelley and others, of New York, in 1864, and one by the expedition under Commander T. O. Selfridge, U. S. N., in 1870-'71, have shown that between the Gulf of San Blas and the Pacific slope of the Cordillera a tunnel will be required of not less than seven miles in extent for a thorough cut. By using a higher summit-level, *i. e.*, resorting to locks, the length of the tunnel might be somewhat reduced, possibly to six miles, and still have feed-water, though this is by no means certain. The cost of a tunnel of suitable cross-sections, with masonry-arch, and of one mile in length, Mr. Menocal computes to be not less than $15,000,000, while for greater lengths the cost would be increased in a very rapid ratio, owing to the distance it would be necessary to transport

material excavated and that used in construction. It is not, in my opinion, safe to estimate for self-sustaining rock in a projected tunnel of so large dimensions, for, although it might prove to be so, there is no means of ascertaining the fact beforehand, and the chances are, to say the least, as much against as for it. A tunnel of even five miles in length would thus cost between $80,000,000 and $100,000,000. The Bayano river cannot be utilized, and an independent canal would have to be built from the end of the tunnel to the sea. The line possesses but two good features, one the magnificent harbor afforded by the Gulf of San Blas, the other the short distance from sea to sea, in a direct line but thirty miles. These, however, compensate but slightly for the enormous disadvantages. The line bears no comparison with either the Nicaragua route or that of Panama as developed.

On our return I found a letter awaiting me from the Department, forwarding a copy (appended and marked A) of a communication from a Mr. Julian Sucre, of Aspinwall, referring to a plan for a passage across the Isthmus. I called upon Mr. Sucre, and found his plan as I had supposed, one which had been offered some years since by Captain Hugg himself, a master of a coaster, to Commander Selfridge. Commander Selfridge was satisfied at the time that Captain Hugg had no information which he could not procure in better shape by actual survey. Mr. Sucre, who proved to be the husband of Captain Hugg's daughter, showed great reluctance in giving me information in regard to the line, notwithstanding he so freely offered it in his written communication, evidently desiring first to make some definite arrangement as to compensation. He, however, admitted that the list began in the Gulf of San Blas, admitted that he had never seen it, and that he had no information in regard to it beyond a traverse, *i. e.*, a line of compass-courses and the corresponding distances, the following of which from the starting-point, which he thought he should be able to recognize, would give the location of the line. He also stated that the line, though but eighteen miles long, was from sea to sea.

He also acknowledged that Captain Hugg had no instruments, beyond those used in navigating his vessel, for making the survey. He expressly declared that the river Bayano did not form part of the scheme. This was the amount of the information I was able to extract from the gentleman, and it was quite sufficient. To begin with, the distance from sea to sea in a direct line is thirty miles, about, at the narrowest part of the Isthmus. This we have from the marine charts, which are fairly accurate. Information obtained in the manner that Captain Hugg professed to have obtained his, *i. e.*, by merely walking over it, has been proved repeatedly to be absolutely worthless. A man who walks over a trail for fifteen or twenty miles has very little idea of what heights he has passed over; if his path carries him over a steep-sided hill, he is apt to exaggerate the height of it, but if the ascents and descents are very gradual, he will often believe that he has been upon an almost dead level. Even very intelligent persons will be deceived in such cases. Dr. Cullen, whose name was for years so prominently connected with the Darien route, asserted, and probably believed, that he had crossed the Isthmus from Escoses Harbor without finding an elevation of over 150 feet. An instrumental examination by a party under his own guidance found over a 1,000 feet of elevation.

Captain Hugg's route was clearly no other than the San Blas line, the impracticability of which, to my mind, had been thoroughly demonstrated.

On communicating with our parties in the field, we found that during our absence they had been making good progress in their work.

Lieutenant Colby had shifted his camp on March 16 to Lion Hill, and again on the 20th to Gatun, occupying at each place, by consent of Superintendant White, the station residence.

Lieutenent Leutze had shifted to a place near Gorgona on the 19th, calling his encampment "Camp Colby."

On the day following our return, I was siezed with an attack of fever, which confined me to my quarters for nearly a week. Mr. Menocal, however, nothing the worse for his trip, went into the field again at once. Lieutenant Leutze was suffering from frequent attacks of the fever, but refusing to spare himself, continued his work to the end, and has suffered for it ever since.

The officers were now making great efforts to complete their lines in time to sail for home in the steamer of the 4th of April, and for this purpose were performing an amount of work which would have broken down the strongest, had it continued. Mr. Colby wishing to communicate with myself concerning his line, and, finding that I was unable to visit him, walked into Aspinwall, a distance of seven miles, one evening after having worked from early daylight until 4 o'clock in the afternoon in a heavy swamp. He then started back, and walked nearly to his camp before procuring a horse upon which to ride the remainder of the distance.

March 24, Mr. Leutze again struck his tents and shifted to a point near Mamei, calling his encampment "Camp Jeffers," for the Chief of the Bureau of Ordnance of the Navy.

On the 29th, Mr. Leutze again shifted camp to San Pablo Station, occupying, for the first time, one of the station residences, instead of his tents.

On the first of April Mr. Leutze's line intersected that of Mr. Colby near the initial point of the latter, and Lieutenant Very connected his traverse with Lieutenant Taussig's original station-mark. On the following day, Messrs. Coffin and Greene brought up the levels and connected with Mr. Moser's bench.

April 2, Mr. Colby's line reached the bench at Aspinwall, he having been delayed one day in trying to improve on a portion of the line near Lion Hill where, after plotting, it had been found necessary to have a little further information.

The natives were now discharged, and the officers and their assistants, with their camp equipage, proceeded to Aspinwall. Here what remained of the provisions brought from the United States and such articles of outfit as were not thought worth transporting back to New York were sold at auction.

The expedition was then embarked on board the Pacific Mail steamship Acapulco, and sailed for home on the 4th of April, arriving in New York on the 12th of the same month.

It is impossible, in a brief account like the foregoing, to give any adequate idea of the amount of labor performed by the officers and men upon a survey of this character, and only those who have had experience in tropical forests, with their dense vegetable growth, the jungle of vines, undergrowth, briars, canes, grasses, the numerous varieties of plants bearing thorns, &c., and who have experienced the annoyance of the myriads of insects, particularly the *garapata* or wood-tick, which infests seemingly almost every leaf that one brushes against, can fully appreciate the character of the undertaking. And too much cannot be said in commendation for the officers for their untiring zeal and energy,

and for the cheerfulness with which they encountered discomforts and difficulties. The severest labor, as well as the chief responsibility in the parties rested upon the commanding officers, Lieutenants Leutze and Colby. Upon them devolved the immediate conduct of the survey, the control of the men, and the general comfort of the parties; and each showed himself to be entirely equal to the requirements of his position. Lieutenants Very and Taussig, in addition to running the transit instruments, were required, as is usual, to sketch in the topography. Lieutenant Moser, Messrs. Coffin and Greene, ran the levels, and on connecting their several sections and referring their results to the plane of mean half-tide, found their accumulated error to be less than one-half foot. Dr. Bransford, in addition to taking care of the sick, made some very valuable collections in natural history. He also made a collection of geological specimens, which will pretty completely exhibit the character of excavations and of available materials for construction. The services of Mr. Menocal, the chief-engineer, were simply invaluable. With a thorough knowledge of his profession, full of resources in overcoming impediments, untiring in field-work, he moved from party to party as his assistance was needed; made constant reconnaissances ahead of the line, and thus saved the parties a great deal of useless work, and thereby hastened the completion of the survey. Messrs. Buck, Westerfield, Burnett, Fleming, and Philp, were faithful and intelligent in the performance of their several duties.

WATER-SUPPLY.

By the plan which we propose for the construction of a canal, the water-supply will be drawn entirely from the river Chagres; not counting for the present the influx from springs or that which will be received from two small rivulets received into the canal by cess-pools. It will be carried to the receiving-basin of the canal by means of a feeder to be described farther on.

Gauges of the Chagres, taken with great care, showed that the amount of flow at the point where the proposed feeder leaves the river is about the same as that at the site of the viaduct.

On the 15th of March, the Chagres being at the time at an unusually low stage, even for that season of the year, there was found a discharge of 55,900,800 cubic feet per day. Allowing eighty lockages a day, *i. e.*, forty ascending and forty descending, there would be required, without allowing for the displacement of the vessel in descending, which we have the right to do, making the loss just so much less, 34,400,000 cubic feet per day; adding 100 per cent. for waste, leakage, evaporation, and filtration, a very large allowance, we should still have an excess above the highest possible demand of about 9,000,000 cubic feet per day, supposing the supply to come from the feeder alone; a large percentage of the water needed would doubtless be supplied by springs. A well standing at the summit of the railroad, 142 feet above the proposed level of the canal, was full up to the surface during the driest period of our stay upon the isthmus. While, therefore, I believe that all loss of water will be more than supplied from sources other than the river, the quantity from the latter source, as shown above, would be ample if such were not the case. It will be shown in the description of the feeder, in what manner it is proposed to get rid of the superabundant waters at high stages of the river.

LOCATION OF THE CANAL.

For reasons already given, it had been determined to cross the river Chagres near the great bend at Matachin, and a short distance above

the confluence of the Rio Obispo. The reasons for selecting this point may be briefly summarized as follows:

1st. The near approach of the two ranges of hills inclosing the valley of the river gave good abutments for the viaduct, at the same time giving ample room for a sufficient number of culverts to discharge the waters of the river in times of freshets.

2d. The valley of the Obispo gave a direct and favorable approach to a depression in the divide, passing which the valley of the Rio Grande carried the line by the shortest distance to the bay of Panama.

3d. The level of the highest water-marks at this point were found to be 78 feet above mean half-tide of either sea; adding to this the necessary rise of arch of the culverts, the thickness of wall in the viaduct over the crowns of the arches, and the proposed depth of water in the canal of 26 feet, would give a total of 123.75 feet as the height of the water-surface in the viaduct above that of mean half-tide. To descend from this height to the level of the sea would require twelve locks of a side, or twenty-four in all, the greatest number thought admissible, the number required in the Nicaragua line being but ten of a side. To go higher up the river would not only involve a greater number of locks, but would also involve going a greater distance for the initial point of the feeder, or else a higher dam. To go lower down the river, and consequently diminish the summit-level, would of course increase the length of the deep cut through the dividing ridge between the Atlantic and Pacific slopes.

THE VIADUCT.

The proposed viaduct will be 1,900 feet in extreme length; the water-way will be 65 feet wide and 26 feet deep; the side walls 23.25 feet thick at the bottom and 6 feet thick at the top; the thickness of the bottom wall over the crowns of the arches will be 6 feet. Twelve culverts are provided for, with 90 feet span each, and varying in height from the foundations of their respective piers from 40 feet to 12 feet, according to location.

The spring of the arch in each culvert begins at the highest water-mark. The rise of arch is 12.857 feet; the radius of the arch, 85 feet; the width of the piers at their heads is 111.5 feet; their thickness, 25 feet; the area of each pier-head is consequently $111.5 \times 25 = 2{,}787.5$ square feet. Allowing 40 tons to the square foot, these will each sustain 249,760,000 pounds weight.

Mr. Menocal computes the actual weight to be borne as follows:

	Pounds.
Concrete: 254,300 cubic feet, at 150 pounds per cubic foot	38,145,000
Water: (65 feet, width of water-way; 115 feet, spread from center to center of arches; 26 feet depth; at 62.5 pounds per cubic foot,) $65 \times 26 \times 115 \times 62.5$ equals	12,146,875
Total	50,291,875

or about one-fifth the sustaining-power of the pier.

THE CANAL.

It is proposed to make the surface-level of the water in the viaduct the summit-level of the canal.

PACIFIC DIVISION.

From the end of the viaduct the proposed line leading to the Pacific extends in a general direction of south 37½° east, through the range of

hills inclosing the valley of the Chagres, passing which it enters the receiving-basin, of which a description will be given when treating of the feeder.

Leaving the basin, the same course is continued for a distance from the initial point of 1,323 feet; thence the general course is south 32° east for a distance of 27,239 feet, which brings the line to the summit-curve; thence south 50° east 39,565 feet; and finally on a general course of south 80° east 11,376 feet, which brings it to the beach, about one-quarter of a mile to the eastward of the Panama Railroad Company's wharf at Panama. The total length of the Pacific division is 79,509 feet, or 15.8 statute miles. These various sections are made up of straight reaches and of curves, which are arcs of circles; the general course given in each case being the bearing of one end of the section from the other.

The line is laid down to follow as nearly as possible the best, *i. e.*, the lowest profile; it occupies the valley of the Rio Obispo until the foot of the dividing range of hills is reached; crosses the divide through a depression somewhat to the eastward of the point where the railroad crosses; thence descends into the valley of the Rio Grande to the end of section 3, as above given, where it curves to the left and again to the right, finally reaching the point of debouchment. The straight reaches and the curves are numbered consecutively from the Pacific to the Atlantic. A table is herewith appended giving the lengths of the straights and curves, (the length of the arc in feet in the latter case,) the radiuses of the curves, the number of degrees of arc, the total distance from the Pacific terminus, and the middle ordinate for 400 feet in each curve. Practically, this last gives the distance of the middle of the keel of a ship 400 feet in length from the center of the canal, when her bow and stern are exactly in the center.

Two small tributaries of the river Obispo are passed under the proposed canal by means of culverts, their beds being sufficiently low to admit of it.

One very small rivulet is received into the canal by means of a cess-pool. Short bends in the Obispo are occupied by the line of the canal in three localities, and a new channel in each case is provided for the stream.

At the foot of the divide, the Obispo itself, now diminished to a mere thread, is also received into the canal by means of a cess-pool. Descending into the valley of the Rio Grande, the present channel of that stream is crossed in several places, new channels being provided for in each case.

A drain is located leading into the bay of Panama to the eastward of the debouchment of the canal, by which the waters of all the small streams coming now into the Rio Grande from the eastward will be discharged, while those coming in from the west will find vent through the present mouth of the Rio Grande.

Twelve descending locks, each with a lift of 10.3 feet, and one tide-lock with a lift of 10 feet, will be required in this division. All are favorably located. Nos. 4 and 5, Nos. 6, 7, 8, and 9, are in flights, and No. 12 and the tide-lock are also placed together. All the locks in this section, with the exception of Nos. 10 and 11, are located in hills to secure a natural rock foundation. Nos. 10 and 11 are in earth. The deepest or exact summit cut in this division will be 170 feet above the surface of the water; this is for a distance of only a rod, however, the profile falling rapidly on either side.

The total length of the summit-cut is 4.81 miles, and the average depth

of cutting 76 feet above the proposed water-surface. The excavation for the remainder of the division will be but little more than the prism of the canal itself.

ATLANTIC DIVISION.

The following are the courses and distances of the several sections of canal from the viaduct to the Atlantic terminus, the courses in each case being, as before, the general direction, while the distance is the actual length of the straights and curves, viz:

	Feet.
From the viaduct north 37½° west	2,415
Thence north 86° west	19,689
Thence south 81° west	8,753
Thence north 50° west	9,471
Thence north 23° west	14,870
Thence north 57½° west	38,689
Thence north 28½° west	18,879
Thence north 17½° west	23,843
Total length of Atlantic division	136,550

or 25.9 statute miles. Total distance from sea to sea, 41,7 miles.

For a distance of 7.6 miles from the viaduct the country is very broken. Several hills are passed, the line, however, following the best profile attainable. The longest cut will be 2,500 feet. The intermediate valleys offer ample places of deposit for the material excavated, much of it, indeed, being required for embankments. The line now falls into the valley of the Chagres, and is located in low and occasionally swampy land for a distance of 3.7 miles. Here the excavation will be less than the prism of the canal, the material excavated being used in constructing embankments. Hilly country is then met for about the same distance, after which the line continues in low, swampy ground to Aspinwall Bay.

Thirteen culverts are provided in this division; some for the passage under the canal of small steamers, others to give vent to what water there might be in the rainy season in what were dry ravines at the time the survey was in progress. Two or three other little branches are turned into side-drains. Near Gatun the line occupies the present bed of the Chagres, for which a new channel is provided. The river Gatun, a tributary of the Chagres, is turned into the Mindi, and the Mindi into the Boca Chica, which discharges into Aspinwall Harbor about one mile outside the proposed debouchment of the canal. Twelve locks will be required, each with a lift of 10.3 feet. These are all located in hills Nos. 2, 3, and 4. Nos. 5, 6, 7, and Nos. 8 and 9, are in flights, respectively. The line of the proposed canal is at no point more than a mile distant from the track of the Panama Railroad.

The prisms of the canal are in earth, rock, and swamp as follows, the depth being throughout 26 feet, viz:

	Width at bottom.	Width at surface.	Slope of bank.
	Feet.	*Feet.*	
Earth	72	150	1 vertical to 1½ horizontal
Rock	72	126	1 vertical to ¼ horizontal
Swamp	60	164	1 vertical to 2 horizontal

These prisms are thought to be ample, even after allowing for the irregularities of excavation, for all purposes of navigation. Ten feet above the water-surface there is a berm on either side of 9 feet, forming a roadway; the same slope is then carried to the surface. In swampy land the banks are, of course, formed by the material taken out.

LOCKS.

The dimensions proposed for the locks are: total length, 500 feet; length between miter-sills, 450 feet; width of chamber, 65 feet. The design of the locks, made by Mr. Menocal, has been fully described in the report upon the Nicaragua survey. They are fed through 60′ side pipes, communicating with the lock-chambers by means of ports, three of a side, one at the head, one in the middle, and one at the foot of the chamber. It is proposed to use hydraulic concrete as dimension-stones, except for miter-sills, for which dressed stone is proposed and estimated for.

Nos. 10 and 11, in the Pacific division, are so located that there will probably be no rock foundation. For these there are proposed a concrete floor of 6 feet thickness; concrete side walls, with a thickness at the base of 30.95 feet, the inner faces to have an outward slope of $\frac{1}{4}$ foot horizontal to 1 foot vertical; on the outside the side walls to diminish in thickness by offsets of 3.66 feet each, four in number, and at equal distances from the bottom, the walls to be 6 feet thick at the coping.

Nos. 4, 7, 8, 12, and the tide-lock in the Pacific division, and Nos. 1, 2, 5, 6, 7, and 8 in the Atlantic, are believed to be located entirely in rock. For these a lining of concrete is estimated for, the floor to be 2 feet in thickness and the side walls 3 feet.

The other locks are believed to be partly in rock and partly in earth. For these is proposed a floor of concrete 2 feet thick and side walls 3 feet thick at the top of the rock, and increasing thence to the bottom of the chamber in the ratio of $\frac{1}{4}$ foot to 1 foot of descent. Above the rock, the side walls to be of concrete, and in dimensions identical with the corresponding portions of those in Nos. 11 or 12, Pacific slope, already described.

The turning-gates proposed are of the same character as those used in the United States naval dry-docks.

DRAINAGE.

Culverts have been provided, as already enumerated, for every stream, dry water-course, and ravine whose bed was sufficiently low to pass it under the canal. In the accompanying drawings each culvert is shown in elevation.

Side-drains, also already enumerated, are provided for those streams favorably located for that purpose with a cross-section, proportionate in each case to the discharge of the stream or streams which they are intended for.

In Table No. 2, hereunto appended, are given the names, if any, location, number, and dimension of spans, and the length of canal drained by each culvert, and the length drained by the various side drains.

Except the tide-water reaches, the whole canal, after being opened, may be drained, if necessary for repairs or examination, by cutting off the feeder and opening the gates below.

No. 1.—*Table of straights and curves.*

PACIFIC SIDE.

From viaduct to Panama.

Straight.	Curve.	Radius.	Angle.	Length.	Total distance from initial point.	Middle ordinate per 400 feet.
		Feet.	° ′	*Feet.*	*Feet.*	
1				2,490		
	1	5,000	52 5	4,546	7,036	4
2				1,815	8,851	
	2	5 000	58 00	5,062	13,913	4
3				14,320	28,233	
	3	10,000	3 30	611	28,844	2
4				7,020	35,864	
	4	20,000	13 30	4,538	40,402	1
5				1,240	41,642	
	5	20,000	7 05	2,723	44,365	1
6				4,640	49,005	
	6	5,000	11 50	1,030	50,035	4
7				910	50,945	
	7	5,000	13 12	1,152	52,097	4
8				1,580	53,677	
	8	5,000	16 45	1,462	55,139	4
9				4,325	59,464	
	9	10,000	6 30	1,134	60,598	2
10				1,610	62,208	
	10	5,000	26 10	2,283	64,491	4
11				12,370	76,861	
	11	10,000	13 10	2,646	79,507	2

ATLANTIC SIDE.

From viaduct to Aspinwall.

12				1,640		
	12	2,500	35 30	1,550	3,190	8
13				2,660	5,850	
	13	5,000	17 20	1,512	7,362	4
14				7,750	15,112	
	14	2,500	27 15	1,209	16,321	8
	15	2,500	28 45	1,253	17,574	8
15				4,480	22,054	
	16	5,000	21 00	1,832	23,886	4
16				2,470	26,356	
	17	5,000	21 06	1,840	28,196	4
17				775	28,971	
	18	5,000	42 05	3,672	32,643	4
18				7,635	40,278	
	19	10,000	47 20	8,260	48,538	
19				2,420	50,958	
	20	5,000	48 00	4,190	55,148	4
20				8,265	63,413	
	21	10,000		1,483	64,896	2
21				7,467	72,363	
	22	10,000	31 36	5,515	77,878	2
22				820	78,698	
	23	10,000	32 00	5,550	84,248	2
23				9,580	93,828	
	24	2,500	57 15	2,498	96,326	8
24				2,065	98,391	
	25	5,000	30 00	2,618	101,009	4
25				9,080	110,089	
	26	5,000	60 00	5,236	115,325	4
26				8,590	123,915	
	27	10,000	16 30	2,880	126,795	2
27				1,175	127,970	
	28	5,000	47 40	4,160	132,130	4
28				4,420	136,550	

Total length from viaduct to Aspinwall, 25.86 miles.

TABLE No. 2.—*Culverts, side-drains, &c.*

No. of culverts.	Name of river or ravine.	Location.	No. of spans.	Length of spans.	Rise of arch.	Height of pier.	Length of canal drained.
							Feet.
1	Ravine	C. 12, center	3	75	13		21.00
2	Ravine	S. 13, com	1	100	16	14	28.00
3	Ravines	S. 14, com	3	60	15	11	38.00
			3	75	25	13	
4	River near Gorgona		1	100	17	14	18.00
5	Ravine and Rio Juan Grande	S. 14 and C. 14	3	75	15		54.00
			3	75	17		
			1	81	14		
			1	81	14		
			3	40	6		
6	Rio Pisco and ravines	S. 15, mid	3	75	13		61.00
7	Gullies		1	81	14		53.00
8	River near Barbacoas	S. 18, com	3	75	13		56.00
			3	75	13		
9	Frijole Grande	C. 19, com	3	40	6		44.00
10	Frijole	S. 19, end	1	81	14		158.00
11	Rio Agua Salud	S. 20, end	3	60	9		74.00
12	Ravine in very broken country	S. 20, end	1	60	9		22.00
13	Qua. Aujeta	S. 21, com	3	75	17		68.00
14	Rio Tortuoso	C. 22	3	75	17		52.00
			3	75	17		
	Rio Gatun drains into Mindi						586.00
	Rio Mindi drains into Boca Chica						
	Viaduct Rio Chagres near Matachin		12	90	12.8	12 to 44	32.00
	Basin near Obispo Station						24.00
1	Rio Cabulla		1	81	14		30.00
2	Near 40-foot falls		3	75	17		57.00
	Rio Sardanilla; well into canal						68.00
	Upper Obispo; well into canal						129.00
	Rio Grande drained each side of canal						508.00

THE FEEDER.

The manner of locating the feeder has been already given.

At a point distant some twelve miles by the traverse above the site of the viaduct, the valley of the Chagres was found to be inclosed between two solid walls of rock, very steep-sided, and approaching within less than 600 feet of each other.

Here a location was selected for a dam, by which to raise the waters of the river to a height of 12 feet (being one foot for each mile of distance) above the proposed surface of the water in the viaduct. The exact spot chosen was at a short bend made by the stream in its narrow valley. The channel-way is but 140 feet wide, with a rocky bank and bed; it is proposed to place the dam across the lower side of the bend, and across the channel from side to side of the valley, raising the waters 36 feet above the surface as it stood at the time of the survey.

An admirable foundation and admirable abutments are secured for it by this location. In the accompanying drawings are shown the cross-section of the river-valley, together with the dimensions of the proposed structure.

As has been said, the initial point of the feeder is some 4,800 feet by the river-traverse above the site of the dam, but, owing to a curve in the river, quite as near to the line of canal. The effort to locate the feeder on a grade-line by which an open cut of moderate depth could be secured proved unavailing, except by a vast increase in the length, and even when the grade could be followed the hill-sides were frequently so steep as to give no location. The elevations were often much too high, and in two localities considerably too low for the purpose.

As finally located, the feeder proposed is 10.22 miles long, in which distance there will be required seven sections of tunnel of the following lengths, respectively, viz:

	Feet.
No. 1	4,200
No. 2	5,600
No. 3	300
No. 4	800
No. 5	1,400
No. 6	900
No. 7	500
Aggregate of tunnel	13,700

There will also be required two inverted siphons of 4,530 feet and 12,000 feet length, respectively. Computations were also made for aqueducts in place of the inverted siphons, and the cost found to be so little in excess that Mr. Menocal strongly recommends their use instead. The remainder of the distance will be in open cut.

The feeder discharges its waters into a receiving-basin of 22 acres superficial area, and of which mention has already been made. This basin is located in the Pacific division about 1,000 feet from the end of the viaduct, and is formed by the erection of a dam to inclose an angle between two spurs of the range of hills forming one side of the valley of the Chagres. The length of the dam will be upon the top 1,760 feet; its height from the lowest foundations will be 74 feet. The channel of the Rio Obispo has to be turned for a short distance to give room for the dam.

A plan of the basin, with a profile showing the location of the dam, and a cross-section of the latter is among the accompanying drawings.

It is proposed by a gate at the head of the feeder to cut off the supply of water in the canal when found desirable. All the superabundant waters of the Chagres will then escape over the dam, and will pass through the culverts under the viaducts.

The floods of the Chagres are caused in part by the backing up of the waters from below. Much of this could be prevented by clearing off the timber in the bends of the river, a work, by the way, which it would well repay the railroad company to undertake, the road suffering a good deal at times from being overflowed.

CHARACTER OF EXCAVATIONS AND MATERIALS FOR CONSTRUCTION.

In the valley of the Rio Grande the land is generally low and swampy; the soil seems to be an admixture of sand and clay, with a great deal of ooze in the bed of the stream.

Approaching the divide, we find a vegetable mold overlying a stratum of clay, with sandstone cropping out so often, and appearing in the cuts to be so near the surface, that in our computations for excavation we have taken the rock to be within 10 feet of the surface, not only in the dividing ridge, but in all the hills throughout the line. In the valleys 20 and 30 feet were allowed for earth. The sandstone is being quarried on the Pacific slope at Paraiso, about nine miles from Panama, and at Bahio station, on the Atlantic side, and seems to be of the same character in both places, so soft that, with an ordinary geologist's hammer, I have broken to fragments pieces a half cubic foot in size with but two or three blows. Exposed to the atmosphere it becomes honey-combed upon the surfaces. It is used by the Panama Railroad Company in

bridges, &c., but would not be at all suitable for structures required to sustain great weight or to withstand any severe shocks.

The excavation in the hills and the higher valleys and plains will present only the ordinary features of vegetable mold overlying clay, and under that the sandstone, which last can be removed by the pick and crow-bar, though it would probably not be as economical a method as blasting. Some of the swamps, particularly what is known as Miller's Swamp, some twelve miles from Aspinwall, gave great trouble to the railroad company, and I fear would do so again in the event of the construction of a canal on this route.

The soil is a soft ooze of unknown depth, and I greatly fear that it would be exceedingly difficult to prevent the channel's filling up as fast as opened. Near Aspinwall the swamp seems to overlie a bed of coral, and a channel could probably be maintained without trouble.

MATERIALS FOR CONSTRUCTION.

There is very little material, except timber, fit for purposes of construction. No rock was found which could be used as dimension-stone, and it is even doubtful whether any would answer for concrete.

Some limestone of fair quality was found near Empire and along the banks of the Chagres. Of timber, there is great abundance.

HARBORS.

Panama.—The only improvement proposed in the bay of Panama is the excavation of a straight channel 18 feet deep at mean low water out to the 18-foot curve, a distance of 9,200 feet. As there are some 20 feet of rise and fall of tide, this channel would have 26 feet of depth whenever the water was above half-tide, or for over twelve hours each day.

Large vessels, or vessels of 18 feet draught and over, of which, as I believe, there will be very few in the future, would have to wait for a favorable stage of the tide to enter or leave the canal, making a delay in extreme cases of from five to six hours.

The enormous additional cost of giving a deeper channel we regard as a worse evil than any small delays to ships in passing. The waters of the bay are so very quiet that no protection is needed for the entrance of the canal.

Aspinwall.—Estimates have been made for deepening a channel in the bay of Aspinwall out to the 26-feet curve, a distance of 1,826 feet, the few inches of rise and fall of the tide offering no such help as we have at Panama.

A breakwater is also estimated for, to extend from the point where the light-house is located in a west direction for a distance of 1,500 feet, which would render the harbor perfectly safe in all weathers.

The breakwater, although exceedingly desirable, is not absolutely necessary, and its construction might at least be delayed until the canal should begin to earn something.

The shores surrounding the bay of Aspinwall are of coral formation, and all the reefs in the harbor seem to be of the same.

COMPUTATIONS AND ESTIMATES.

Careful computations have been made by Mr. Menocal, and by Lieutenants Taussig and Moser and Masters Coffin and Greene, under his

immediate direction, of the amount of excavations in rock and earth, of materials, masonry, &c., required for the construction of the canal, the erection of locks, dams, &c., for the improvement of the channels from the termini of the canal to deep water in the bays of Panama and Aspinwall, respectively, and for a breakwater in the latter. And upon these computations Mr. Menocal has estimated the cost of the work.

The estimates are herewith forwarded.

The following is a summary of the estimated cost, viz:

Excavations and embankments	$37,392,935
One tide-lock, Pacific side	290,815
Twelve lift-locks, Pacific side	3,931,672
Twelve lift-locks, Atlantic side	3,787,296
Viaduct across the river Chagres	1,415,333
Feeder	7,954,182
Dam across the river Chagres	805,908
Dam to confine receiving-basin at Obispo	1,606,869
Fourteen culverts, Atlantic side	12,579,878
Two culverts, Pacific side	781,600
Drains, Atlantic side	921,073
Drains, Pacific side	368,638
Two wells, or cess-pools, to drain streams	13,886
Excavations, bay of Panama	1,992,585
Excavations, bay of Aspinwall	983,785
Breakwater at Aspinwall	782,673
Total	75,609,108
Adding 25 per cent. for contingencies	18,902,252
Total estimated cost	94,511,360

The following is the scale of prices allowed, viz:

	Per cubic yard.
Excavations in rock	$1 25 to $1 50
Excavations in earth	35
Excavations in swamp	40
Embankment	15
Hydraulic concrete	8 00
Dressed stone for miter-sills of locks	18 00
Excavation in tunnels for feeder, sandstone	4 00
Excavation in rock for cess-pools	4 00
Under-water excavation, bay of Panama	5 00
Under-water excavation, bay of Aspinwall	5 00
Pierre Perdue breakwater, Aspinwall	3 00 to 4 00

ADVANTAGES AND DISADVANTAGES OF THE PANAMA ROUTE.

The advantages of this line are: an ample water-supply; an open cut with but a moderate average depth of excavation; a comparatively short distance, 41.7 miles, from sea to sea; fair harbors on either side; the proximity of a well-constructed railroad; the established communication with the principal ports of the world; the absence of high winds, and, in common with the whole isthmus, the fertility of its soil, and the salubrity of its climate during the dry season.

The disadvantages are: the large annual rain-fall; the want of material for construction purposes; the character of some of the swamp-lands in certain portions of the line; the amount of tunneling required in the feeder; the necessity of a viaduct; the prevailing calms of Panama Bay, causing tedious delays to sailing-vessels; and, finally, as compared with more northern lines, the greater distance of Panama * from the ports upon the west coast of the United States.

* Panama is six hundred miles farther from San Francisco than Brito, the Pacific terminus of the proposed canal through Nicaragua.

CLIMATE, HEALTH, ETC.

The year is divided, as in other parts of the American isthmus and of Central America, into two seasons, the rainy and the dry, the former beginning in the latter part of May and lasting until the last of November, when it gives place to the latter, which lasts till May comes around again. The annual rain-fall is from 90 to 140 inches.

I do not regard the climate as an unhealthy one for temperate persons, who exercise the proper care in their diet and habits. The diseases, as I have had occasion to say in a former report, are few in number, simple in character, and generally yield readily to treatment, unless the patient be a dissipated person. The report of Dr. Bransford will be found interesting on this point.

In estimating the amount of labor which can be performed by a man in Central America, comparison is often made with the Southern States of the Union. This is hardly a fair example upon which to form a judgment. The trade-winds, blowing home for a large portion of the year, afford an element which the climate of our Southern States does not possess, and which greatly mitigates the heat, or at least the ill-effects of heat.

The temperature in the shade averages 82°, about, the year round, and the barometer 29.95, about.

CONCLUSION.

Mr. Menocal, the chief engineer of the expedition, was called away very suddenly to go to Nicaragua, upon a mission in which he is now engaged, under the Government, and did not, I regret to say, make a report; he had, however, completed the estimates already given, and left his work in such condition that, although it would have been exceedingly interesting, no detailed report was actually necessary.

Since Mr. Menocal's departure, Lieut. E. D. Taussig, U. S. N., has been in charge of the completion of such matters as required it, and has exhibited the same close accuracy and attention that have characterized his work since his first connection with the expedition.

I have the honor to be, sir, your most obedient servant,

EDWARD P. LULL,
Commander, Commanding Expedition.

Hon. GEO. M. ROBESON,
Secretary of the Navy.

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SURVEY FOR AN INTEROCEANIC CANAL.

NAVY DEPARTMENT,
Washington, D. C., November 4, 1875.

SIR: I have the honor to submit the following report of the operations of the expedition engaged, under the direction of the Department, during the past winter, in surveying the Napipi route for an interoceanic ship-canal, together with a discussion of the results obtained as bearing on the question of the practicability of such a canal in that locality.

Agreeably to the Department's special instructions of the 9th December, 1874, I sailed on the 5th January last from New York for

Aspinwall, with the necessary outfit of instruments and stores, and the following officers, who had been ordered to report to me for duty: Lieut. J. G. Eaton, U. S. N.; Lieut. J. T. Sullivan, U. S. N.; Lieut. S. C. Paine, U. S. N.; Asst. Surg. Earnest Norfleet, U. S. N.

On the 14th we arrived in Aspinwall. On the 18th the United States steamer Canandaigua, detailed by the Department to transport the expedition to the Gulf of Urabá, came in, and I reported to her commanding officer, Capt. Edward Barrett.

On the same day Ensign H. H. Barroll reported to me for duty, he having been transferred to the Canandaigua for that purpose by Rear-Admiral Mullaney, in compliance with telegraphic orders from the Department, prior to her sailing from New Orleans.

The non-arrival of certain of our stores that failed to come in the steamer that had brought us out, compelled us to await the arrival of the next steamer; but the time was put to good use in ranging our instruments and in practicing all hands in the work before us.

On the morning of the 28th we sailed from Aspinwall, and at 5.30 p. m. on the 30th came to anchor off the Coquito mouth of the Atrato. At noon on the 31st, all our instruments, provisions, and stores having been snugly stowed in the launch and second cutter, we shoved off in tow of the steam-cutter, and started upon our journey up the Atrato. Our party consisted of the officers just named, a rodman and interpreter, whom I had hired in Aspinwall, and a detail of five men from the Canandaigua. In addition, there were twelve men, under Master Richman and Assistant Engineer Herwig, to take the boats back.

Owing to delay in finding the mouth of the Caño Coquito, we did not get fairly started on our journey up the river till noon of February 1, when we crossed the bar, finding 4 feet of water on it.

Our five days' trip up the Atrato was tiresome in the extreme, the boats being so completely filled with our stores that little chance was left for comfortable quarters either by day or night.

The little steam-cutter proved, as had been anticipated, barely equal to her task, and, with frequent stoppages to clean fires, and mend this or that, she was scarcely able to make three knots over the ground, against the rapid current. We had every day, for a few hours, favorable winds, and always made sail on the boats when it would draw, thus relieving the steam-cutter considerably. We stopped at but one of the three villages that are to be found on the Atrato below the Napipi. This was at Sucio, the first of the three and the most important. There we were well received by the alcalde and custom-house officials. The alcalde informed me that he had instructions from his government to afford the expedition every possible assistance. I expressed my appreciation of this kindness, but declined other assistance than a supply of good wood for the steam-cutter, which was very obligingly furnished.

As large quantities of drift-wood were floating down the Atrato, I did not think it prudent to run up stream at night. We therefore came to anchor just after dusk, and got under way just before day-light each day. While thus at anchor we measured, by means of the current-meter, the surface-velocity of the Atrato. The mean of our experiments showed a surface-current of 183.5 feet per minute.

At 5 p. m. on Friday, February 5, we reached the mouth of the Napipi, having been under way in all about 59 hours.

The next day, with Lieutenant Sullivan, I went to the village of Vejia del Fuerte, about fifteen miles farther up the Atrato, for the purpose of engaging native laborers. Lieutenant Eaton was left with directions to

discharge our stores as quickly as possible, and turn the boats over to Master Richman, in order that he might return without delay to the ship.

In Vejia, I found no difficulty in securing as many natives as I wished. I selected twelve of the best, agreeing to pay each $25 per month, and $5 for their subsistence. This plan was found to work much better than the old one of providing them with food from the stores of the expedition, and it was much more economical. I also hired six canoes, at the rate of $5 per month each.

On Monday, February 8, we started up the Napipi for the point at which I had determined to begin work, and on the 9th the regular labors of the survey commenced. From this time till work stopped on the 27th of April, not a man connected with the expedition was idle for a day when he was physically able to work. The force was divided into small parties, commanded by Lieutenants Eaton and Sullivan, and myself, operating on different portions of the route, as circumstances rendered expedient, and the work was pushed with energy.

The limits of this report will not permit a detailed account of the operations of the expedition. Several circumstances combined to render our work much harder than had been anticipated, and our force was so small that extraordinary exertions were required of each. Had the little party not made up in metal what it lacked in numbers, it could not have succeeded in accomplishing half its allotted task. We were favored, however, by an exceedingly dry season, and by the general good health of the party, though one of the men gave out at the very beginning of the work, and was of little use from that time to the end.

On the 28th of April I was much surprised by the arrival of Master Richman at headquarters, at the junction of the Napipi and Merindo Rivers, with word that the Canandaigua's boats were waiting for us at the mouth of the Napipi. I was the more surprised at this, as I had received a communication from the Department to the effect that the orders to the commanding officer of the Canandaigua had been so changed as to delay her arrival in the Gulf of Uraba till the 15th May. It appeared, however, that Captain Barrett had received neither this order, nor the letters I had sent him, and had accordingly proceeded to the Gulf on the 15th April, as directed in his original instructions.

Unfortunately, also, the ship was nearly out of bread, and the instructions of Master Richman were to wait but five days, two of which he had already consumed in reaching us from the mouth of the Napipi. I at first thought I should be compelled to let him return without us. But, upon reflection, I concluded that it would not be the part of prudence to do so. I knew that, by that time, Lieut. Sullivan, who was at work on the Pacific slope, must have connected his line with the beach, and that the main labors of the survey were completed. Our provisions were nearly exhausted; the wet season was setting in; many of the party were sick; all were showing more or less the effects of their long siege; and our natives were tired of the work, discontented, and anxious to return to their homes. Under these circumstances I did not think it right either to continue the exposure of the party for an indefinite period, or to put the Department to the expense of sending twice after us, simply for the purpose of putting the survey in a little more satisfactory shape.

I therefore dispatched a messenger to Lieutenant Sullivan, with orders to stop work at once and return to headquarters with all possible dispatch. He arrived with his party at 5 p. m. on the 30th. On the following morning all hands started down the Napipi. We reached the

boats at 10 a. m. on the 2d of May, and at 8 a. m. on the 5th were once more aboard the Canandaigua. While she was getting steam, I went, with Lieutenant Sullivan, to the village of Turbo, where, before going up the river, we had made arrangements for securing a quantity of the coal known to exist in that locality, in order that its commercial value might be tested. I was not greatly surprised, however, to find that no steps had been taken to fulfill the contract, and, as the Canandaigua was obliged to proceed immediately, we had to leave without it.

On the 7th of May we arrived in Aspinwall, and on the 16th sailed in the Pacific Mail steamship Acapulco, for New York, arriving on the 25th.

On the 27th I reported in person the return of the expedition, and on the 31st was detached from the command and ordered to special duty in connection with the preparation of the data obtained.

On consulting with the Chief of the Bureau of Navigation as to the best form in which to present the information acquired by the expedition, it was thought best to prepare estimates of the amount of work the construction of a canal by this route would involve, and, for the purpose of comparison, to calculate from these estimates its probable cost, allowing the same prices that had already been allowed for similar proposed work elsewhere. I have, therefore, the honor to present herewith such estimates, together with a detailed description of the works supposed to be necessary to the successful operation of a ship-canal in that locality.

In reference to these estimates I would say that they are founded on the general plan for a canal proposed by Commander T. O. Selfridge. This plan, in its essential features, is to follow the left bank of the Napipi to its junction with the Doguado. There to cross the Napipi by means of a dam of sufficient height, and then to follow the valley of the Doguado till the cutting becomes so deep as to compel a resort to tunneling. Then to pass under the divide by means of a tunnel coming out on the Pacific slope in the valley of the Chiri-Chiri River, in which are to be situated the locks necessary to descend to, or ascend from, the Pacific Ocean at Chiri-Chiri Bay.

In treating of the proposed work, I have, for convenience of reference, divided my remarks into eleven heads to correspond with the paragraphs of my instructions, as follows:

I. General description of the country along the proposed line; description of the proposed work; manner of conducting the survey.
II. Culverts and works to protect the canal from floods.
III. The dam and basin for crossing the Napipi.
IV. The tunnel and pointing-basin.
V. Locks.
VI. Characteristics of the strata requiring excavation.
VII. Water-supply and aqueduct from the Rio Cuia.
VIII. Meteorology and climate.
IX. Materials for construction.
X. Harbors.
XI. Local advantages and disadvantages; general remarks.
XII. Synopsis of estimates.

I.—GENERAL DESCRIPTION OF THE COUNTRY IN THE VICINITY OF THE PROPOSED LINE; MANNER OF CONDUCTING THE SURVEY; DESCRIPTION OF THE PROPOSED CANAL.

The State of Cauca, within the limits of which lies the proposed canal route now under consideration, is one of the seven States composing the

United States of Colombia, as the old republic of New Granada is now called. Cauca occupies the extreme northwestern part of the South American continent, and it is divided into four provinces or cantons. Of these the canton of Choco is the northwesternmost, lying contiguous to the isthmus of Darien, and extending from 4° to 8° north latitude. It lies entirely to the westward of the Cordilleras of the Andes, which leave the Pacific coast between the second and third parallels of north latitude and divide into three branches, the intervening valleys being drained by the Magdalena and Cauca Rivers. The strip of land forming the canton of Choco is drained by two large rivers; the Atrato flowing to the northward into the Caribbean sea, and the San Juan to the southward into the Pacific. Between these rivers and the Pacific coast runs a range of comparatively low hills, rising in most cases abruptly from the shore. This range turns to the eastward in about 8° north and joins the Cordilleras of the isthmus of Darien.

The Atrato River rises in about 5° 20′ north latitude, and, flowing nearly parallel to the Pacific coast, empties into the Gulf of Uraba through a delta comprising many mouths. As is usual under such conditions, these mouths are obstructed by bars, but within the bar the channel of the river is broad and clear, and 26 feet of water can be carried at the lowest stage of the river for a distance of one hundred and sixty miles. Above this point it begins to shoal, but 6 feet may be carried for another hundred miles, at which point Quibdó, the capital and principal town of the canton, is situated.

In the canal scheme now under consideration, it is proposed to use this river for about one hundred and fifty miles, at which distance from its mouth it receives from the westward a small tributary, the Napipi. Opposite this point the coast of the Pacific trends far to the eastward, so that its farthest indentation, Chiri-Chiri Bay, is but about twenty-eight miles, in a direct line, from the Atrato. Here it is proposed to construct the canal. Although the direct distance is, as has just been said, but about twenty-eight miles, it was found necessary upon actual survey to introduce many curves in order to keep the most favorable ground, and the exact length of the line about to be described is increased to 30.25 miles. Of this distance 3.5 miles are in tunneling, the summit-level of the canal having been raised by locks 143 feet above mean tide.

With this brief indication of the geographical position and general character of the proposed work, I will proceed to a more detailed description of the topography of the country in its immediate vicinity, as developed by our surveys of the past winter.

Our observations in every part of this region have shown its topographical features to be wonderfully systematic. From the main divide, which skirts closely the Pacific coast, come down to the eastward long ridges, forming the divides between the valleys of the various tributaries to the Atrato. These ridges send off to the northward and southward smaller spurs, and these divide again and again until the whole country is overspread with ranges of hills, running the one into the other like the veins of a leaf. A detached hill is rarely to be met. The crests of these spurs and ridges are usually very narrow, and their sides descend abruptly, often precipitously. Their crests, rising and falling with gentle slopes, afford always good ground for walking, and they are used by the natives for their roads or trails almost exclusively, they having long ago discovered that the longer way around, with good walking, is a surer way home than the shorter which, cutting across the ridges, presents a succession of steep and slippery hill-sides. Crossing these steep ridges with our line of survey, as we were frequently com-

pelled to do, caused us great delay and much hard labor. The operation of leveling over such broken ground is, of course, extremely slow and tedious, while the mere matter of walking to and from work, when the distance is at all considerable, is so exhausting as to impede the progress of the survey very seriously.

Immediately along our line of survey the country naturally divides itself into four divisions as regards its topographical characteristics. First, there exists from the banks of the Atrato, for some five miles to the westward, a flat, swampy region of a lower average level than the banks of the adjacent rivers. During the wet months this region is frequently inundated to a considerable depth. During the dry seasons its higher portions become sufficiently firm to be passable; but those of a lower level always remain open-water swamps or miry morasses. This portion of the route is, in fact, the delta of the Napipi, since it is bounded to the westward and northward by a second mouth of that river, called the Braso Muriel, while a third mouth, the Palmerito, flows through its central part. It includes, in the portion near the Atrato, two large cienegas or lagoons, which, during the wet months, are lakes, with an average depth of 6 to 10 feet of water, but which are more or less dried up as the rains lessen. These cienegas at one time threatened to put a stop to our surveys, but by the indefatigable exertions of Lieutenant Eaton an isthmus, or natural causeway, as he terms it, was found between them, which was of sufficient firmness to permit the passage of his party. But one hill was discovered in this portion of the route. It is about 90 feet in height, and is doubtless an upheaval of the underlying rock, against which, and around which, the *débris* brought down by the river has accumulated to form the delta.

We had no means to enable us to determine the depth at which the bed-rock lay in this locality. Poles 10 to 15 feet in length were shoved down without resistance. In the calculations for the canal, a thickness of 30 feet of earth has been allowed.

The vegetation of this section is peculiar. Away from the immediate banks of the rivers there are comparatively few trees, and they principally the Quita-sol palms, covered with long, sharp thorns, and affording little shade. The ground is covered with coarse swamp and hummock grass, that cuts like a knife.

Some miles of river-navigation might be saved by turning the canal more to the northward through this section than it has been projected. Such a deflection would increase its length about one mile. It would lie for the most part through the Cienega Muriel, and the ground would, it is likely, be quite as favorable as that shown on our profile. Should a canal ever be built by this route, it would, no doubt, be found advantageous to follow such a line in preference to the one here proposed.

The second topographical section extends from the Braso Muriel, some six miles to the westward. It is characterized by the extension of the spurs of the divide between the Opogado and Napipi Rivers to the very banks of the latter, rendering it necessary to cross them continually with the survey.

Extended reconnaissances were made to determine the practicability of flanking these hills by a detour to the northward; but in almost every case they were found to increase in altitude as they receded from the river, proving to be parts of the system just described, and not detached hills that might have been flanked.

When, therefore, these spurs butted on the river, there was no course left but to cross them. It is quite possible that many of them might have been crossed more favorably than they were. Our limited time

and small force did not enable us to be certain that we were always on the best ground.

In projecting the canal-line after the field-work had been plotted, it was found that by diverting the Napipi in several places, by short cut-offs through its sharp bends, and carrying the line to the southward, several of these hills could be avoided. The line was therefore laid down in this way, and our profile shows it as thus amended. Ample allowances, it is believed, have been made where the canal-line thus deviates from the line of survey, and in the accompanying synopsis will be found estimates for the required diversion of the river.

The third topographical section extends from the western limit of the second to the point of crossing the Napipi, near the junction of the Merindo. In this section the spurs or ridges extend but rarely to the river, so that it was found possible, by keeping the line well to the southward, to avoid crossing them. The profile, therefore, of this section shows level or undulating ground, with no elevations of any considerable magnitude. Our reconnaissances developed the same system of ridges here as elsewhere, except that they terminated, generally, at 1,000 or 1,500 feet back from the river instead of extending to its very banks. This section, in common with all the others except the first, is well covered with heavy timber, which appears wherever the ground loses its swampy character.

The boring-apparatus, which had been supplied for determining the character of the strata along the line, was found to be so unsuitable that but little use could be made of it. A few borings were obtained, and the lack of others was supplied as well as possible by a careful observation of the exposures on the banks of streams crossed by the survey. It was found that on the crests of the ridges the rock was always close to the surface, frequently cropping out. In the intervening valleys it was found at depths varying from 10 to 20 feet, the depth increasing with the distance from the nearest hills.

The fourth topographical section extends from the crossing to the Pacific. It is characterized by being extremely broken and by the great height of its ridges as compared with those of other sections.

The distance between the Doguado and Merindo Rivers is so small, and the divide between them is so high, that its spurs extend almost invariably directly to the river-banks, and it is impossible to carry a line of survey up either bank of the Doguado without crossing these spurs continually. Of course, the nearer the line is to the river, the less will be the elevation at which they will be crossed. My instructions to Lieutenant Sullivan, who commanded the party making this survey, were to keep the line well down toward the river to secure the best ground. This was done as well as the circumstances of the case and the state of our knowledge at that time would permit. But it was subsequently found that the line was farther from the river than we had supposed, and that it did not show as favorable a line for the canal as it was evident must exist.

Having, therefore, this line of survey and another, made by myself up the bed of the river, I projected the canal-line as close to the river as possible without introducing impracticable curves, (2,500 feet was the minimum radius allowed,) and approximated the elevations by adding to the elevations of the river-bed the observed height of its banks, and to this a part of the difference between it and the corresponding elevation on the main line proportioned to its distance from that line.

That part, then, of our profile between the crossing of the Napipi and the eastern face of the tunnel must be regarded as, to a certain extent, hypothetical. But the projected line is always near one or the

other of the lines of survey, and such allowances have been made that I am certain that our profile is, if anything, less favorable than the reality.

The height of the dividing ridge which is found in this section is, at the point crossed by our survey, 778 feet. The crest of the divide is only 7,000 feet in direct horizontal distance from the Pacific beach.

Manner of conducting the survey.

Our main line of survey was run entirely with two instruments constructed by Wurdeman, of Washington, and called "gradienters." These instruments had been in use on the previous survey and had been found admirably adapted to the rapid reconnaissance of open rivers. They particularly recommended themselves to us, when fitting out for the last expedition, from the fact that they enable the force required for the work of survey to be reduced to a minimum. The method of measuring distances by means of a micrometer attachment to the telescope is also exceedingly convenient in a rough country, but for a regular survey, where it is desirable to run for long distances on a given course, these instruments are not well calculated. They are very trying and vexatious instruments to run; they are hard to keep in adjustment and very easily broken; and it is extremely difficult to plot their work over rough country with any sort of accuracy. They would be excellent instruments to put on board ship for the reconnaissance of rivers, and for use in surveying harbors; for any other purposes I would not recommend them. Our experience, however, shows that, when carefully handled, they will give fairly reliable results. We had no opportunity to run extended lines of check-levels for the purpose of testing the accuracy of our work, but on several occasions during the progress of the survey checks were obtained, in some cases lines of considerable length, over very rough ground, being involved. In each of these cases the disagreement was less than five-tenths of a foot, which is quite as close as could have been expected.

On the line for the aqueduct, we connected with the survey of 1873. Here a line more than twenty miles long, and mostly over the roughest possible ground, was involved, and the discrepancy was between 3 and 5 feet. I can give it no closer, as the actual point on which to connect could not be determined, the mark having disappeared. But the nature of the ground admitted of no greater limits than those assigned, and the difference was assumed at 4 feet. I therefore conclude that our elevations are sufficiently accurate for preliminary reconnaissance. Our elevations were obtained entirely by absolute measurement with the rod and spirit-level, using only horizontal lines of sight. This involved great labor when ascending or descending the steep spurs so abundant in some portions of the line. The measurement of the angle of elevation, as was done by Lieutenant Michler, when surveying the Truando route, would have materially diminished our labor and correspondingly facilitated our progress, but our instruments were not well adapted to this method.

The distances on the main line of survey were generally measured by the micrometer. Two targets were fixed on the leveling-rod, 5½ feet apart. The number of turns and fractions of a turn of the micrometer-screw corresponding to every distance of 10 feet, from 40 feet up to 500, were determined by a series of careful experiments before leaving Aspinwall. For the intermediate feet, interpolations were made, and the whole tabulated for ready reference.

The advantages of such a method of measuring in a rough country can be readily appreciated. As for its accuracy, I caused the distances thus obtained to be frequently checked by the standard tape, and the results were such as to convince me that, for a rapid survey, it is superior to the common method of chaining. On hill-sides, where the rise or fall was so rapid as to necessitate sights of less than 40 feet, we resorted to the tape or chain.

Our reconnaissances for developing the topography on either side of the line were necessarily so rapid as to allow only the roughest determination of distance, direction, and elevation. The first was determined by pacing; the second by the pocket-compass; the last by the hand-level or aneroid-barometer. Neither, of course, can be relied upon except in a very general way; though, after becoming expert by much practice, our results often checked with surprising accuracy.

Finally, I may say with regard to our survey, that we did our best with the means at hand, actuated solely by an honest desire to do our work faithfully and learn the truth. Pressed as we were for time, the desire to progress with speed was never allowed to interfere with good work. The following brief extract from my instructions to Lieutenant Eaton will show how this important matter was regarded, and I am sure my ideas were fully carried out:

> You will impress upon every member of your party, who may be charged with any instrumental work, the necessity for *accuracy*. Our object is to obtain accurate and reliable data as far as we go, and every one should feel that ample time will be allowed him to conduct his observations with all possible care.

Description of the proposed canal.

The canal is divided for convenience of description into four divisions.

The "eastern division" extends from the Atrato River to the "basin" by which the canal crosses the Napipi to follow the Doguado, a distance of 20.6 miles. Throughout this distance it lies on the northern, or left, bank of the Napipi, except where that river has been diverted in some of its sharp bends to the northward. In this division there are to be placed, at convenient points, twelve locks, having a lift of 10.3 feet each, raising the water-surface of the canal from 19 feet, (the extreme low-water level of the Atrato,) to 143 feet, which is the height of the summit-level. Through the swampy region in the lower part of the route, the water-surface of the canal is kept below the ground-surface; but where the firm ground is reached, the water-surface is kept well above the ground, so that for nearly fourteen miles of the eastern division, more or less embankment is required. The cut in this division averages about 30 feet in depth. The necessary culverts and side-drains to accommodate the surface-drainage in this division have been estimated for, and will be found fully described under their proper heads.

The "middle division" extends from the basin, just mentioned, to the commencement of the tunnel. Its length is 4.8 miles. The "basin" is formed by a dam thrown across the Napipi below its junction with the Merindo. Beyond this basin the canal follows the Doguado River very closely, crossing it from time to time to keep the best ground. For the greater part of this division the cutting is very deep. The deepest cut is 245 feet, and the average for the division is 95 feet.

The "tunnel division" is 3.5 miles in length. Two plans are proposed for this tunnel. In one it is to be 118 feet high in the clear, 70 feet wide at water-surface, and to have 27 feet depth of water. The

other plan contemplates a tunnel of the same height, but reduced in width to 60 feet at water-surface, and with 30 feet depth of water. In both plans it is proposed to line it with an arch of masonry.

The "western division" extends from the western portal of the tunnel to 26 feet below low-water mark on the Pacific. Its length is 1.3 miles. This division includes a "pointing-basin" at the western end of the tunnel, by which the necessary change of direction between the tunnel and the Pacific locks is to be effected. These locks are ten in number, each having a lift of 14.9 feet, and they are placed so that one immediately follows the other—an arrangement necessitated by the extremely steep character of the Pacific slope.

The entrance to the canal at Chiri-Chiri Bay is to be protected by proper breakwaters, and allowances have also been made for opening a channel through the bar at the mouth of the Atrato.

Adding together the lengths of the four divisions as given above, we have as the total length of artificial cut required by this route, 30.25 miles.

The following form and dimensions have been assumed as best suited to meet the requirements of the case:*

	Feet.
Width at bottom	72
Width at water-surface in earth-cuttings	150
Width at water-surface in rock-cuttings	98
Slope of sides in earth-cuttings	1½ to 1
Slope of sides in rock-cuttings, below water	¼ to 1
Slope of sides in rock-cuttings, above water	½ to 1
Width of top of embankments	9
Slope of embankments, interior	1½ to 1
Slope of embankments, exterior	2 to 1
Width of "bench," (10 feet above water-surface)	9
Width of locks, inside	60
Length of locks between miter-sills	400

II.—WORKS FOR PROTECTING THE CANAL FROM FLOODS, INCLUDING CULVERTS, SIDE-DRAINS, AND CHANNELS FOR DIVERTING THE NAPIPI, DOGUADO, AND CHIRI-CHIRI RIVERS.

It is obvious that in a country subject to such excessive rains as is the one now under consideration, ample arrangements for providing for the surface-drainage, and insuring the permanency of the canal-works by protecting them from floods, are of the first importance.

In considering this, as well as all other points involving the principles of engineering, I have consulted frequently with Mr. Menocal, late chief civil engineer of the Nicaragua and Panama expeditions, and am under many obligations to him for his readiness always to afford me the required assistance. His time, however, was so fully occupied with his duties that I could not think it right to trespass upon it more than was necessary for a general outline of what was required, and he cannot be held responsible as indorsing in detail the accompanying estimates.

In the swampy section of the route, near the Atrato, nothing more seems possible in the way of drainage than what is already provided by nature. In such a soil it would, of course, be impossible to carry the water-surface of the canal above ground. The first section of the canal is therefore to be carried at such a depth as to insure 26 feet of water at the lowest stage of the Atrato. It extends as far as the hills, already spoken of, in the center of the swampy section. There, it is supposed, a

* The dimensions are substantially the same as those adopted by Commander Lull in his estimates for the Panama route.

rock foundation will be found, and two locks are introduced. These have a lift of 10.3 feet each, and raise the water-surface to 36.6 feet above mean tide, but still keep it below the ground surface. At half a mile to the westward of these hills, there occurs a decided rise in the general level of the ground, and this point may be considered as marking the limit of the morasses, though continuous hard dry ground is not found till beyond the Braso Muriel. At the rise just mentioned, lock No. 3 is situated. This raises the level 10.3 feet more, 46.9 feet in all, but the water-surface is still below the ground, and is kept below till the firm ground is reached.

The depth of water in the lowest level of the canal will, naturally, vary with the stage of the Atrato. In dry weather, both locks would be required. With a rise in the river, one or both could be left open; and during great rises it is probable that the entire portion below lock No. 3 is completely covered with a shallow sheet of water.

It is my belief, however, from my own observation and the testimony of the natives, that such inundations are not of long duration. The waters rise rapidly with extraordinary rains, and subside with equal rapidity to their normal wet-season stage, in which the rivers are confined to their proper beds, and the adjacent lands are uncovered. It is only the lowest portions, like the cienegas near the Atrato, that remain covered with water during the entire wet season. Whether or not these overflows would prove injurious to the canal, is a question for engineers. It appears to me that this portion of the canal could be regarded only as a channel-way to be dredged out to the required depth, and constant dredging would probably be required, for a long time at least, to keep it open.

It is proposed to close the Braso Muriel by a wall between the canal and the Napipi, thus stopping the flow of water from the river, and leaving the Braso to perform the functions of a drain. It would, perhaps, be a good plan to provide a cess-pool here, by means of which water might be taken into the canal during the dry season to supply the two lower locks.

After crossing this arm of the Napipi, and reaching the firm ground beyond, the question of surface-drainage assumes a new aspect. For nearly fifteen miles the canal-line runs along the left or northern bank of the Napipi, crossing the various streams, great and small, which drain the northern half of its valley.

There are two ways in which this drainage may be taken care of. If the canal be carried at a high level, the waters may be collected at convenient points by side-drains, and passed under the canal by culverts. If the canal be carried at a low level, a capacious channel must be constructed along its northern side, by which the waters will be conveyed to the Braso Muriel, and thence to the Atrato. Both plans involve great expense—the former for the necessary culverts, which must be massive works of solid hydraulic concrete; the latter for the enormous excavation required both in the main canal and in the side-channel.

In the plans herewith presented the two systems are combined.

Although four locks are introduced in the hills immediately beyond the Braso Muriel, raising the bottom of the canal to a height of 63.5 feet above mean tide, yet it is still kept sufficiently below the ground surface to require no culverts. This level is continued as far as the hills in "straight 4," a distance of some 15,000 feet, where lock No. 8 is introduced, and immediately beyond the lock comes culvert No. 1.

This culvert has tributary drains running both eastward and westward. The eastward drain extends to the hills in "straight 3," and from

the eastern slope of those hills a large drain is to extend to the Braso Muriel.

From lock No. 8 to the crossing of the Napipi the bottom of the canal is kept well up, and the surface-water is collected at convenient points by side-drains, and passed, by culverts, under the canal into the Napipi. These culverts number twelve in all. They are to be massive structures of solid hydraulic concrete, with the same internal form and dimensions as the ordinary prism of the canal in rock-cuttings. The arches below for affording passage to the water are semi-elliptical in shape, and they vary in number from 1 to 14, according to the requirements of the case.

In the valley of the Doguado the bottom of the canal is always so far below the level of the river as to make anything in the way of culverts out of the question. Ample side-drains have therefore been allowed for, by which the drainage of this section will readily find its way to the basin.

In the valley of the Chiri-Chiri one culvert has been allowed for, and the necessary drains to carry the drainage of the remaining portion directly into the Pacific.

Diversion of the Napipi, Doguado, and Chiri-Chiri Rivers.

In three places, the canal-line, in order to avoid high land or long detours, has been carried across the Napipi in its sharp northern bends. In these cases estimates have been made for the necessary diversion of the river by artificial channels, as well as for the necessary walls or culverts for carrying the canal across the depression of the present bed. In one case advantage has been taken of the bend to form a siding or turn-out, and the necessary allowance for this is included in the estimates.

In the valley of the Doguado, in order to keep the lowest ground, the canal-line is obliged to follow the river very closely, crossing it frequently. In all these cases allowances have been made for the necessary diverting-channels.

In the valley of the Chiri-Chiri allowances have been made for a channel to carry the waters of that river around the "pointing basin," which is situated immediately beyond the western portal of the tunnel.

The items of expense for all these works will be found fully set forth in the synopsis of estimates appended to this report. The following will show at a glance the estimated cost of the works deemed necessary to a proper protection of the line from floods:

Culverts	$3,031,400
Drains	2,449,670
Diversion of the Napipi	571,720
Diversion of the Doguado	949,190
Diversion of the Chiri-Chiri	89,730
	7,091,710
Add twenty-five per cent.	1,772,930
	$8,864,640

III.—THE DAM AND BASIN FOR CROSSING THE NAPIPI RIVER.

It has been stated, in the general description of the proposed canal, that an essential feature in the plans suggested by Commander Selfridge was the crossing of the Napipi by means of a dam.

My instructions from the Department contained particular directions to fix the proper location for this projected structure with precision.

The conditions of the problem are such as to point at once to the junction of the Merindo as the proper site for this dam, and a glance at our map will show that the topography of the locality is admirably adapted to the purpose.

A ridge of sufficient height, butting on the left bank of the Napipi a few hundred feet above this junction, and exposing a bluff of solid rock, affords a convenient abutment for the north end of the dam. Thence it extends across the bed of the river, which is here about 100 feet wide; across a low alluvial point lying between the two rivers; across the Merindo, which is about 50 feet wide and abuts at its south end against a ridge lying parallel to that stream and close to it.

The bed of the Napipi shows solid rock all the way across. A boring, obtained in the center of the alluvial point, showed bed-rock at the same level as that in the river, and I feel safe in assuming that a solid rock foundation will be found for the entire length of the dam. The solid rock is exposed on the bluff at the north end, and a careful examination of the ridge at the south end convinced me that rock exists there also at a depth of not more than 5 feet.

The extreme length of the dam on the crest will be 1,590 feet. The roots, which are supposed to be imbedded in the solid rock not less than 20 feet, are formed in steps, to follow the slope of the banks. On its foundation it has a length of 1,330 feet. This foundation is a solid bed of hydraulic concrete, 6 feet thick by 20 wide. On this rests the superstructure, which is formed of a shell of coursed masonry, in heavy blocks, with a hearting of solid concrete.

The dam is backed with a mass of clay and gravel, excavated from the basin behind it, and thrown up with a slope of 2 to 1. The front of the dam is formed in steps, to break the force of the overfall, and an apron of heavy timber, resting on bearing-piles and filled in below with broken stones, extends 55 feet down-stream. On each side a wall five feet higher than the crest of the dam confines the overfalling water to a width of 1,200 feet, and keeps it clear of the roots.

The total height of the dam above the bottom of the foundation is 33.2 feet. Its height above the mean level of the surface of the ground, in which it is imbedded for the greater portion of its length, is 20 feet. The width of the crest is 8 feet. It raises the waters of the Napipi 25 feet above ordinary dry-season stage.

In determining the height of this dam it was proposed to me, by Commander Selfridge, to make its crest as high as the level of the highest flood ever known on the Napipi, and to make it as long as possible in order that, during floods, there should be no great rise in the basin behind it, and, consequently, in the summit-level of the canal.

The height of the greatest flood was approximately marked on the wall of a native hut near the mouth of the Merindo. The old native who pointed out the mark said that the flood had occurred in November, and that it lasted but a few hours. Taking everything into consideration, I am compelled to doubt its ever having occurred at all, but the height indicated was a convenient one, and I therefore adopted it. It gives a dam of good length, and brings the bottom of the canal above the bed of of the river at the point of crossing. It brings the water-surface of the summit-level up to 141 feet above mean-tide. I subsequently determined, in view of the limited water-supply during the dry months, to make the dam 2 feet higher, thus giving a depth of 28 feet to the water in the basin and summit-level, and giving a reserve to draw upon in extraor-

dinarily dry seasons without diminishing the depth below 26 feet. The summit-level of the canal, under ordinary conditions, becomes, therefore, 143 feet.

Provisions have been made for a rise of 5 feet above this height without injury to the canal-works. I do not consider it possible that such a rise as this can ever occur. The greatest rise that took place while we were in the country occurred on the 11th of April. It increased the hourly flow of the Napipi from 340,000 cubic feet on the 10th to 11,000,000 on the 11th, and it subsided again to 1,169,000 on the 12th. Such a flood, which would be of ordinary occurrence during wet seasons, would, according to the calculations of Mr. Menocal, raise the water but 1 foot above the crest of the dam. A flood of double that volume then, which would be uncommon, would raise it less than 2 feet, and that one should occur to raise it 5 feet, it is impossible to imagine.

A dam of the height here proposed would overflow an extent of country that I estimate roughly at one and one-half square miles. A careful line of levels was run up the beds of each of the tributary rivers, to the point to which its waters would be set back, and reconnaissances were made to develop the character of the country along their banks. The topography was found admirably adapted to the formation of a basin, no retaining walls being needed, except near the north end of the dam, and there for a very short distance.

The physical features of this locality render it expedient to bring the canal to the Napipi near the north end of the dam, and to leave it again near the mouth of the Doguado. It becomes, therefore, imperative to provide means for preventing the precipitation of débris brought down by floods into the canal-bed proper.

It is believed that the excavation of a basin of the form adopted (which it is difficult to explain intelligibly without the aid of a diagram,) will effectually accomplish this object.

This basin will also form a commodious turn-out that will, I think, prove of great value in the actual operation of the canal.

IV.—THE TUNNEL AND THE "POINTING BASIN."

At a distance of 26,000 feet from the crossing of the Napipi, the cutting having attained a depth of 220 feet, and rapidly increasing, it is proposed to resort to a tunnel for carrying the canal under the dividing-ridge, which here attains an elevation of 778 feet.

A tunnel starting at the point indicated, and coming out at a corresponding elevation in the valley of the Chiri-Chiri, would be three and five-tenths miles in length.

As no tunnel approaching the dimensions of the one here contemplated has ever yet been attempted, its necessary size and best form are altogether open questions. The question of its practicability has been fully discussed in the report of Commander Selfridge, and it appears to be conceded that, as a mere feat of engineering, its practicability cannot be doubted.

I propose to consider the tunnel question here, only so far as may be necessary to arrive at a fair approximation to its probable cost, as nearly as that may be done with the limited data we have to work upon. For this purpose I have calculated the cost with different dimensions, according to plans kindly furnished me by Mr. W. H. Hutton, an eminent civil engineer of Baltimore. He proposes two forms of transverse section, according to the nature of the material to be pierced. First, for good solid rock, a trapezoidal form with a segmental arch of 120°, the

crown to be 86 feet above water-line; a width of 70 feet at water-surface; a depth of 27 feet of water, and sides battered 1 to 20. The arch is to be formed of masonry, 5 feet thick at the spring and 3 feet at the crown, the whole to be well backed by concrete. Second, for bad or unsound rock, an elliptical section with a conjugate diameter of 70 feet at the surface of the water, and a semi-transverse diameter of 86 feet above water-level, the section being continued below to a depth of 27 feet, as before. With this section the arched lining springs from the water-surface with a thickness of 5 feet, diminishing to 3 feet at the crown. Both these sections give an area of 1,846 square feet to the water-space.

The first plan would require the excavation of 5,279,843 cubic yards of rock, and 203,498 cubic yards of masonry would be required to form the arched lining. Estimating the cost of excavation at $5.35 per cubic yard, (the cost allowed by Commander Selfridge on the authority of Mr. B. H. Latrobe,) and the masonry at $20 per cubic yard, (for which estimate I have the authority of Mr. Menocal and Mr. S. T. Abert, United States civil engineer at Washington,) and we have the total cost equal to $32,316,120. Adding to this $163,000 for the necessary shafts —a rough estimate—and we have $32,479,120.

The second plan would require 5,102,862 cubic yards of excavation, and 682,993 cubic yards of masonry. This, with the cost of shafts added, gives $40,960,272.

Our present knowledge of the nature of the rock is too limited to enable us to say which of these sections would be found best adapted. Perhaps for the purpose of arriving at the approximate cost it would be fair to average the two sums given above. This gives as the cost of a tunnel 70 feet wide at the water-surface, and 113 feet high, $36,801,196. If we add to this the customary 25 per cent. for contingencies, we have $46,001,496.

The necessity for a width of 70 feet at the water-surface is so strongly questioned by some that I have thought it best to calculate the cost of a tunnel with the forms of cross-section just described, but with the width reduced to 60 feet.

The height above water remains as before, but, in accordance with a suggestion of Commander Selfridge, the depth has been increased to 30 feet. This gives additional water-space at a trifling comparative increase in cost. With these dimensions the area of the water-space is 1,765 square feet. With these reduced dimensions the excavation in good rock would be 4,915,397 cubic yards, and the masonry required in the segmental arch 199,181 cubic yards. At the prices already mentioned these figures give a cost of $30,443,994.

The elliptical section would require, with reduced width, the excavation of 4,562,051 cubic yards, and of masonry 573,494 cubic yards, giving a cost of $35,876,853.

Taking the mean of these two sums as before, we have as the cost of a tunnel 60 feet wide and with 30 feet of water the sum of $33,241,923. This, with 25 per cent. added, gives $41,552,404. In the final summing up, hereinafter given, this sum has been allowed. Those who consider a width of 70 feet as essential must add to the sum total there given $3,559,273.

The "pointing basin."

The general direction of the valley of the Chiri-Chiri River, in which it is proposed to place the Pacific locks, makes, as has already been stated, an angle of 40° with the line of the tunnel. On account of the

nature of the ground in the vicinity and the limited distance to the Pacific beach, it is impossible to introduce a curve for the purpose of making this change of direction, (unless it be introduced in the tunnel itself,) and no better plan has occurred to me than the "pointing basin," about to be described. This consists simply of an open cut, the ground-plan being very nearly in the shape of the sector of a circle. The radius is 400 feet and the chord 290 feet. As a portion of the summit-level of the canal, this basin has a normal depth of 28 feet of water. It is to be excavated mainly in the solid rock, and its side will have the same slope as similar cuttings in other portions of the work.

At a height of 8 feet above the normal water-level, a bench 10 feet wide extends around three sides to facilitate the operation of breasting over the passing ships to the required direction. The western side of this basin makes an angle of 5° with the direction of the tunnel, as a ship would be able to make that change of direction while emerging or entering, and such a plan reduces considerably the amount of excavation required. The principal objection to this basin, as it has been placed in these plans, is the very heavy cutting it will require. This might be greatly reduced by putting the basin a little farther down the valley, but this will lengthen the tunnel, and bring most of the locks entirely above ground, so that what would be saved in the basin would be lost in the locks, and, besides, the work would be very much weakened.

The operation of passing a ship through such a basin is too simple to require explanation. The time occupied could not be greater, and should be considerably less, than would be required for passing through one lock.

V.—LOCKS.

The summit-level of the proposed canal being 143 feet above the plane of mean tide, the necessary locks to overcome this difference of level have been projected and their probable cost estimated. A portion of this difference of elevation on the Atlantic side is already overcome by the height of the surface of the Atrato at the point where the canal leaves it. Our line of levels gave 39 feet as the elevation of the banks of the Atrato at that point. According to the best of our observations and the most trustworthy information we could obtain, the extreme variation in the level of the Atrato is 20 feet. Subtracting this from 39, we have 19 feet as the elevation of the surface of the Atrato at its lowest stage. I regard this as an extreme estimate. This elevation leaves 124 feet to be overcome by locks. For this purpose twelve locks, with a lift of 10.3 feet each, have been proposed, and calculations made for them according to their locations as shown on the profile. At one place there are two together, and at another four in a flight; the others occur singly.

The dimensions proposed are a length of 400 feet between miter-sills, and a clear inside width of 60 feet. The walls inside are perpendicular, but joined to the bottom by a circular arc described with a radius of 10 feet. When the lock is situated in solid rock, a thickness of three feet of concrete has been allowed for sides and bottom. When in earth, this is increased to 6 feet. When the walls rise above the surface of the ground, they are to be 6 feet wide on top, and slope off outside so as to give at every point a thickness equal to .75 of the height above. The lift-walls have a thickness of 15 feet, and ample chambers have been provided. The walls and bottoms are to be entirely in hydraulic concrete, the only dressed stone being 70 cubic yards in each lock for miter-sills. For gates, machinery, and apparatus for filling and emptying

the locks, I have allowed the same sums given by Mr. Menocal in Commander Lull's report on Nicaragua. The aggregate cost of these twelve locks is $2,511,552; or, with 25 per cent added, $3,139,440. This estimate does not include the cost of excavation, as that is already allowed for in the estimate for the division in which they occur.

On the Pacific side the entire difference of level of 143 feet has to be overcome by locks. In fact, in order to enable ships of all classes to enter or leave the canal at all stages of the tide, some 6½ feet must be added to this, the rise and fall of tide in Chiri-Chiri Bay being about 13 feet. We have, therefore, a difference of 149.5 feet to provide for, and estimates have been made for ten locks with a lift of 14.9 feet each. This lift may be regarded as excessive, but no more than ten locks can be placed "end on" between the tunnel and the beach. This crowding of so many locks together in a flight is, of course, objectionable, for many reasons, but the descent of the Pacific slope is so abrupt that it cannot be avoided.

The risk of damage to the works from the enormous hydrostatic pressure would, of course, be considerable. To guard against accidents from this cause, it would be necessary to search diligently for fissures in the rock, and stop them effectively. Lining the entire inner surface of the lock with concrete ought to prevent percolation entirely, and, to guard still further against it, the thickness of the lift-walls in this flight of locks has been increased to 30 feet. In these locks the same dimensions have been allowed as on the Atlantic side, except the necessary increase in height on account of the greater lift. The aggregate cost of these ten locks is $2,537,662, adding to which 25 per cent. we have $3,172,078. The total cost of the twenty-two locks required by these plans then becomes $5,049,214; add 25 per cent., $1,262,304; total, $6,311,518.

VI.—CHARACTERISTICS OF THE STRATA REQUIRING EXCAVATION.

The importance of determining as accurately as possible the character of the strata through which the proposed cutting would have to be made, should this line be selected, was fully appreciated, and every effort made to secure reliable data bearing on the question. The results of our efforts in this direction were not as satisfactory as I could wish, and our data is meager.

The boring-apparatus with which we were supplied proved entirely too heavy and clumsy for our little force to operate satisfactorily. The fact that the screw was of solid steel 3 feet long and 3 inches in diameter will show at once how poorly calculated it was for our purpose. To say nothing of the difficulty of transporting it along the line, it was found almost impossible with the weight and strength of four men to drive it into the tenacious clays of that section; or, if it did advance a foot or so, it was next to impossible, with our appliances, to draw it out again. A number of trials were made with it, with more or less success, and then the necessity of putting all our force on the line of survey compelled us to abandon its use entirely..

It can easily be seen that it was useless to employ an officer and four men all day in reaching a depth of 6 or 8 feet, when the character of the soil could be better ascertained to a greater depth by a simple inspection of the banks of the little streams crossing the line of survey. This method was therefore adopted, and some forty specimens of the soil, at depths varying from 5 to 20 feet, were obtained. These specimens, with several of rock, were sent to Professor Henry, of the Smithsonian Institution, with a request that they might be examined and a report

made of their characteristics, but the press of official duties on the part of the gentlemen connected with that institution has thus far prevented their examination. In the absence, therefore, of the opinion of an expert, I can only give my own conclusions as derived from careful observation.

The thickness of the earth overlying the bed-rock was found, in any part of the line, to depend upon the distance of the nearest hills. On the crests of the ridges, where the rock frequently cropped out, the thickness of earth averaged about 5 feet. In the intervening valleys it increased to 10 or 15 feet, and in the bottom-lands rock would not be found at 20 feet.

Above the junction of the Doguado the earth rarely exceeds 10 feet in depth. In the swampy lands near the Atrato no approximation to the depth at which the bed-rock lies has been attempted.

Throughout the entire length of the line, if we except the swamps, the appearance of the soil is strikingly similar. Below the thin layer of vegetable mould we found everywhere a remarkably stiff, tenacious clay, blackish-red or blue in color, and generally free from admixture of sand. It was this tenacious subsoil that so troubled us in boring. The first two or three feet were passed easily enough, but in the clay below our experience was as has been related. Cutting through this clay would probably be difficult and expensive. But, once cut, no better material for a canal could be desired. The ditch and embankments would, I am confident, be practically impervious to water, and its great stiffness and tenacity would enable it to stand at a good slope, and to resist the wearing of heavy rains and the wash at the water-surface.

Wherever we found outcrops of the bed-rock, which were frequent on the river-banks, it presented uniform characteristics. It was invariably in a state of great disintegration, splitting up irregularly into small fragments, often so soft as to resemble clay. On the faces of high cliffs the rock is continually breaking away and tumbling down. In some places I observed quite distinct traces of stratification, as though the rock were metamorphic in character. On several of the bluffs were well-marked dikes of some harder rock than the main body of the cliff. Generally the rock was full of the irregular seams common to all trappean formations. Where worn and polished by the action of water, as in the river beds, this rock appears extremely hard. In such cases it often has a light color which causes it to resemble sandstone in appearance, though not in texture.

VII.—WATER-SUPPLY AND AQUEDUCT FROM THE RIO CUIA.

The essential question of an adequate water-supply received most careful attention.

Immediately upon arriving at the junction of the Napipi and Merindo Rivers, where headquarters were established on the 13th of February, careful observations of the flow of the Napipi were commenced and continued daily with few interruptions till the 27th of April.

The cross-section of the river was measured with all possible accuracy, and the velocity of the current determined by experiments with a delicate "current-meter." A mean of several observations with this instrument was generally taken, and the area of the stream was multiplied by .84 of the velocity thus determined.

Our observations extended through one of the driest seasons ever known in that section. By referring to the meteorological report it will be seen that but 10.42 inches of rain fell during seventy-three days, and

8.18 inches of this during the last nineteen days. The water-supply as determined by us may, therefore, be safely accepted as the minimum. I will give here in the form of a table the results of our observations. The third column of the table will be found to contain the estimated delivery of the aqueduct from the Rio Cuia, which will be fully described farther on. This aqueduct is capable of delivering 12,000,000 cubic feet daily. Several measurements of the Cuia show it to be in volume about the equal of the Napipi. In estimating the daily supply, therefore, the aqueduct is supposed to be delivering its full capacity whenever the flow of the Napipi is above 12,000,000 cubic feet daily. Whenever the flow of the Napipi falls below that figure, the aqueduct is supposed to deliver a quantity equal to that supplied by the Napipi.

Table showing the estimated minimum water-supply. From observations during the months of February, March, and April, 1875. *Lieut. S. C. Paine, U. S. N., observer.*

Date.	Observed flow of the Napipi.	Estimated delivery of the aqueduct.	Total daily supply. Cubic feet.
February 13	12,143,050	12,000,000	24,143,050
14	13,866,410	12,000,000	25,866,410
15	12,945,410	12,000,000	24,945,410
16	14,267,930	12,000 000	26,267,930
17	12,007,010	12,000,000	24,007,010
18	11,118,940	11,118,940	22,237,880
19	12,882,050	12,000,000	24,882,050
20	11,007,380	11,007,380	22,014,770
21	11,007,380	11,007,380	22,014,770
22	10,848,460	10,848,460	21,696,520
23	10,890,620	10,890,620	21,781,240
24	10,895,830	10,895,830	21,791,660
25	10,846,820	10,846,820	21,693,640
26	10,327,940	10,327,940	20,655,880
27	9,883,150	9,883,150	19,766,300
28	9,883,150	9,883,150	19,766,300
March 1	8,947,200	8,947,200	17,894,400
2	8,916,720	8,916,720	17,883,444
3	8,885,420	8,885,420	17,770,840
4	8,411,760	8,411,760	16,823,520
5	8,411,760	8,411,760	16,823,520
6	8,382,240	8,382,240	16,764,480
7	8,382,240	8,382,240	16,764,480
8	8,382,240	8,382,240	16,764,480
9	8,382,240	8,382,240	16,764,480
10	8,382,240	8,382,240	16,764,480
No observation till 26th.			
March 26	8,681,280	8,681,280	17,360,560
27	8,217,840	8,217,840	16,435,680
28	7,785,120	7,785,120	15,570,240
29	7,785,120	7,785,120	15,570,240
30	7,785,120	7,785,120	15,570,240
31	7,785,120	7,785,120	15,570,240
April 1	7,785,120	7,785,120	15,570,240
2	7,776,440	7,776,440	15,552,880
3	7,344,240	7,344,240	14,688,480
4	7,344,240	7,344,240	14,688,480
5	7,344,240	7,344,240	14,688,480
6	7,200,000	7,200,000	14,400,000
7	6,552,000	6,552,000	13,104,000
8	6,192,000	6,192,000	12,384,000
9	5,814,960	5,814,960	11,269,920
10	8,160,000	8,160,000	16,320,000
11	267,960,960	12,000,000	279,960,960
12	28,067,480	12,000,000	40,067,480
13	26,160,000	12,000,000	38,160,000
14	57,757,680	12,000,000	69,757,680

Table showing the estimated minimum water-supply—Continued.

Date.		Observed flow of the Napipi.	Estimated delivery of the aqueduct.	Total daily supply. Cubic feet.
April	15	78,960,000	12,000,000	90,960,000
	16	98,967,890	12,000,000	110,967,890
	17	36,319,680	12,000,000	48,319,680
	18	52,560,000	12,000,000	64,560,000
	19	67,852,800	12,000,000	79,852,800
	20	20,160,000	12,000,000	32,160,000
	21	12,263,040	12,000,000	24,263,040
	22	11,520,000	11,520,000	23,040,000
	23	10,787,040	10,787,040	21,574,080
	24	22,275,360	12,000,000	34,275,360
	25	18,960,000	12,000,000	30,000,000
	26	15,600,000	12,000,000	27,000,000
	27	12,199,680	12,000,000	24,199,680

The above table shows the water-supply that can be counted upon with certainty as fully as need be. To it must be added the reserve in the basins that can be drawn upon when required. This reserve I estimate roughly at 150,000,000 cubic feet.

As a final resort, there remains the river Opogado, next to the northward of the Napipi. No survey has ever been made for an aqueduct between these rivers, but, from general knowledge of the topography of the vicinity and the results of our survey to the Cuia, I should say that an aqueduct could be built to the Opogado at a cost not exceeding $1,000,000, and that 12,000,000 cubic feet daily could be added to the supply.

The question of water-supply without recourse to the Opogado I consider very fairly settled. The question of the *sufficiency* of this supply I have not been able to answer with any satisfaction to myself.

Not only is the amount of shipping that would seek the canal altogether uncertain; but, granting that we knew with reasonable accuracy the amount of tonnage to be accommodated, the amount of water it would demand would depend altogether on the shape in which it presented itself.

The projected locks will accommodate with ease a ship of 5,000 tons, or two of 2,000 each, or three or four small craft. If, therefore, the shipping present itself in such a way that the full capacity of these locks can be utilized, it would require, to accommodate the 3,000,000 tons that it is supposed would pass through the canal yearly, (see page 93, Report of Commander Selfridge,) only about 2,500,000 cubic feet of water daily—losses from all causes not being for the present considered.

If, on the other hand, the vessels should be mainly of small size, and present themselves for passage singly, it would require, for the same amount of tonnage, three or four times that amount of water. If we may assume that, on an average, 1,000 tons of shipping—whether in one or more vessels—will pass through the canal at each lockage, we may calculate as follows, for double the amount of shipping just referred to.

It requires no argument to show that, in a canal fed exclusively from the summit, and without devices for effecting a saving of water at the flights of locks, economy in expenditure of water would require that ships should pass in either direction in trains. Such an arrangement would be convenient, and, perhaps, necessary on other considerations, and we will proceed on the supposition that an arrangement is in operation to pass eight ships of a thousand tons each in each direction daily.

The first ship passing to the westward will find the Atlantic locks empty, they having been so left by the last ship passing eastward, and at each of these twelve locks she will require one lockful of water, which must, of course, be drawn from the summit. On passing into the Pacific locks she will find them all full, and from the summit-lock she will send back into the summit-level a quantity of water equal to her displacement, and descend without further draft on the supply. Her successors passing in the same direction will find these conditions reversed. They will find the Atlantic locks full, and will ascend to the summit with the expenditure of one lockful of water. They will find the Pacific locks empty, but will descend with one lockful each, less displacement, as before. The eight ships passing westward have, therefore, expended nineteen Atlantic lockfuls plus eight Pacific lockfuls, less their aggregate displacement. These having passed, the transit of those bound eastward will begin. The first of these will find the Pacific locks empty, and will require at each one lockful. She will find the Atlantic locks full, and will descend with one lockful, less her displacement. Her successors will ascend to the summit with one Pacific lockful and descend with one lockful each, less displacement. This may be tabulated and rendered clearer, as follows:

Direction in which bound.	Atlantic.	Pacific.
First vessel passing westward	$12\,l$	$l' - d$
Seven following successively	$7\,l$	$7\,l' - 7\,d$
Expenditure for 8 vessels westward	$19\,l$	$8\,l' - 8\,d$
First vessel passing eastward	$l - d$	$10\,l'$
Seven following successively	$7\,l - 7\,d$	$7\,l'$
Expenditure for 8 vessels eastward	$8\,l - 8\,d$	$17\,l'$
Daily expenditure for 8 vessels each way	$27\,l - 8\,d$	$25\,l' - 8\,d$

The expression for the expenditure of water for 16 vessels, supposing 8 passed each way, becomes $27\,l. + 25\,l'. - 16d.$

It is, however, evident that economy in the expenditure will result from passing as many vessels as possible successively in the same direction. It would be advantageous, then, as far as water is concerned, to set apart alternate days for passing in either direction. On this supposition our expenditure for 16 ships becomes as follows:

Direction in which bound.	Atlantic.	Pacific.
First vessel passing westward	$12\,l$	$l' - d$
Fifteen following successively	$15\,l$	$15\,l' - 15\,d$
Expenditure for 16 vessels westward	$27\,l$	$16\,l' - 16\,d$
First vessel passing eastward	$l - d$	$10\,l'$
Fifteen following successively	$15\,l - 15\,d$	$15\,l'$
Expenditure for 16 vessels eastward	$16\,l - 16\,d$	$25\,l'$
Daily average	$21.5\,l - 8\,d$	$20.5\,l' - 8\,d$

The expression, then, for 16 vessels each way on alternate days becomes $21.5\,l + 20.5\,l' - 16\,d$. In this expression the value of l is 247,200 cubic feet; the value of l' is 357,600; and the value of d is supposed to average 32,260 cubic feet. Substituting these values we have $5{,}314{,}800 + 7{,}330{,}800 - 516{,}000 = 12{,}129{,}600$ cubic feet as the daily expenditure necessary to accommodate 6,000,000 tons of shipping yearly.

The above calculations are founded on the supposition that the tonnage seeking passage shall present itself in equal portions on each day throughout the year. No such favorable conditions could, of course, obtain in actual practice. It would, therefore, be an essential factor in any accurate estimate of the adequacy of the water-supply to know the distribution of the shipping according to months. In all months of the year except March, April, August, and, possibly, September, the supply would be ample. It would, then, be essential to know whether the press of business would be likely to occur during these months, or whether the monthly average would be practically the same the year round.

We must now consider a still more uncertain factor in our calculations, that of *waste* from all causes. The evaporation may be closely approximated. The experiments of Commander Selfridge give a loss from this cause of two-tenths of an inch daily, and 500,000 cubic feet would be a liberal allowance for evaporation from the whole canal. But I have been totally unable to arrive at any estimate of the probable loss from *leakage* and *filtration*. With the canal in rock, and the impervious clays of that region, and with all locks and culverts constructed of solid hydraulic concrete, the loss from these causes should be reduced to a minimum. But, having shown the supply that may be relied upon and the probable demand for passing ships, I will leave the question as to whether the margin is sufficient to cover the losses from all causes to those more competent to decide it.

It should not, however, it seems to me, be forgotten, as far as filtration is concerned, that, as pointed out by Commander Lull, in a canal with as many deep cuts in it as has the one in question, more water would be likely to filter *into* the canal than *out* of it.

Aqueduct from the Rio Cuia.

Finding, as has been stated, that the flow of the Napipi was proving entirely insufficient to supply the projected canal, I took the earliest opportunity to run a line of survey to the Cuia for a feeder.

Such an aqueduct had been proposed by Commander Selfridge, and, under his direction, a survey had been made in 1873 from the Cuia to the Napipi, some distance below the junction. That survey demonstrated the practicability of feeding from the Cuia; it remained for us to make such additional examination as was necessary to obtain the data from which to estimate the character and probable cost of the work.

Such a survey was accordingly made. It showed the ordinary dry-season stage of the Cuia, at the point where we wished to tap it, to be 30 feet above the Napipi. The dam for crossing the latter river, however, raises its water 25 feet, leaving a margin of 5 feet. I propose to raise the Cuia by a dam 9 feet, thus giving a working head of 14 feet.

It is unnecessary to enter here into a detailed description of the works necessary for this aqueduct. The dam, just alluded to, across the Cuia, is 770 feet long. By it the waters are backed up in the main river and in a large tributary, the Salado, which comes in on the left bank just above the dam. From this tributary the waters are carried by an open cut of 5,700 feet and a tunnel of 5,800 feet, to the valley of the Cuita,

which flows into the Napipi some miles below the proposed dam and basin. At a convenient point another dam 500 feet long and 20 feet high is to be thrown across the valley of this stream, and the waters of this basin will be carried into the main basin by an open cut of 2,220 feet and a tunnel of 3,430 feet. We have, then, as the total length requiring excavation—

	Feet.
Open cut	7,720
Tunnel	9,230
Total	16,950

Or about 3.2 miles. A fall of 14 feet in 3.2 miles gives a grade of 4.3 feet to the mile. The mean velocity of the current will be 4.3 feet per second, which would be excessive were it not that the cutting is entirely in rock.

For the proper dimensions and best form for the aqueduct I am indebted to Mr. Menocal. The cut is to be 6.5 feet wide at the bottom, and sides to slope 1 to 1. When the water in the basins stands level with the crests of the dams, the depth in the aqueduct will be 3.5 feet, and under these circumstances it will deliver 150 cubic feet per second, or 12,960,000 cubic feet daily.

Where the open cutting exceeds 50 feet in depth, tunneling has been proposed. The transverse section of the tunnel consists of the trapezoidal form already described, surmounted by a semicircular arch. This gives a total height of 10.25 feet, and width at water-surface of 13.5 feet. It has been assumed that the rock, in a tunnel of such small dimensions, will sustain itself without lining.

Mr. Menocal estimates the probable loss from evaporation and filtration at 75,000 cubic feet daily. But it will be remembered that in estimating the delivery of the aqueduct the Cuia alone has been considered. I estimate the minimum flow of the brook Cuita at not less than 500,000 cubic feet daily, which ought to be sufficient to cover all losses and leave a wide margin.

It is proper to say that, after all the surveys had been completed and plotted and the topography sketched in, it was found expedient to deviate considerably from the surveyed line when projecting the aqueduct.

Wherever such deviations have been made the height has been assumed to be so great as to require tunneling, so no doubt can exist but that the actual conditions are, if anything, more favorable than those assumed.

VIII.—METEOROLOGY AND CLIMATE.

It is unnecessary for the purpose of this report to enter into any extended discussion of questions arising under this head.

During our entire stay meteorological observations, with such instruments as we had at hand, were regularly conducted under the supervision of Lieut. S. C. Paine, and he has prepared a report showing in tabular form, as also graphically, by a projection of the curves, the daily rain-fall, direction of the wind, state of weather, five daily readings of the barometer and wet and dry bulb thermometer, and the relative humidity.

A thermometer exposed to the sun was also observed, in order to show the heat to which laborers would be exposed. These observations gave a mean of 97° F. as the midday temperature, the minimum being 82° and the maximum 114°. It should be stated that 114° was the limit of the graduation of the thermometer, and on one or two occasions it appeared that the mercury would have gone higher if permitted.

The prevailing winds at the junction of the Napipi and Merindo were

from the southward. Nearly every day we had a refreshing breeze from this quarter, springing up about 10 a. m. and lasting till nearly sundown. During the three seasons that I have spent in that locality I have never known a violent wind.

During our stay, from the 13th February to the 28th April, we had a total rain-fall of 10.42 inches, distributed as follows:

		Inches.			Inches.
Feb.	15	0.04	April	18	0.56
	23	0.66		19	0.48
March	10	0.51		21	0.15
	19	0.04		23	0.34
	20	0.31		24	0.15
	22	0.71		25	0.44
April	9	0.25		26	0.04
	11	1.84		27	0.16
	14	0.61		28	0.20
	16	3.16			

It will be observed that during seventy-four days rain occurred on nineteen only, and that up to the 9th of April, (which may be considered as marking the setting in the rainy season,) a period of fifty-five days, rain had occurred on six days only. Of the entire observed rain-fall, 10.42 inches, 8.18 inches fell after the 9th of April. The greater part of the rain fell during the night.

In general no such period of drought as this occurs, and the natives told me that during the previous year there was no distinctly marked dry season at all.

But, as a rule, two well-marked dry seasons are experienced here with corresponding periods of rain. January, February, and March are the months which constitute the driest and pleasantest season. In April the rains commence, and in May and June they are very heavy. In July a second dry season begins to set in, and August and September are generally pleasant and comparatively dry. In October rains again commence, and in November and December they are at their heaviest.

Briefly, then, five months of the year are dry and seven wet, while occasional years may be expected with little or no dry season, properly so called.

Regarded from a sanitary point of view, it would appear that this climate is quite as healthy as any within the tropics. Up to the time that work was begun in the swamps, the health of the members of the expedition was uniformly good. With the exception of a strip five or six miles wide near the Atrato, I consider that the projected line lies through a healthy region. In the more elevated portions, where exposure to the sun during the middle of the day can be avoided, the climate during the dry season is simply delightful. Those members of the expedition whose labors were mainly confined to this portion escaped all sickness.

The experience of all the expeditions, goes to show that, with good food, good shelter at night, flannel clothing, and proper attention to cleanliness, men can endure great labor in that country. It was only when the exigencies of the survey prevented the fulfillment of these conditions that sickness occurred. I do not see why, during the construction of a canal, they may not all be fulfilled much more effectively than our circumstances permitted.

Attention to these details would be of paramount importance anywhere within the tropics. The laborers must be well fed, well clothed, and well sheltered in commodious quarters, situated with special reference to sanitary conditions rather than the convenience of getting to and from work. Proper hospitals must be provided and the little ailments

promptly treated; opportunity to indulge to excess in spirituous liquors must not be allowed; and, in a word, the laborers must be treated as *men* worth caring for; otherwise the opening of a canal on any of the projected lines will cost as many thousands of lives as millions of dollars.

IX.—MATERIALS FOR CONSTRUCTION.

As the projected canal-line lies through an unbroken primeval wilderness and our observations extended over a very limited area, our knowledge of its capability of affording the requisite materials for the construction of the canal is very imperfect.

We know, however, that everywhere out of the swamps the country is well covered with very large timber. I obtained some thirty specimens of wood of different varieties, many of which are very beautiful. They are now in the hands of Chief Constructor Hanscom, for an expression of his opinion as to their value for the various purposes for which timber may be employed.

In regard to other materials, such as rock, sand, clay, &c., I cannot do better than quote from the report of the geologist who accompanied Lieutenant Michler on his survey of the Truando in 1857. The Truando is a tributary of the Atrato, similar to the Napipi, and less than one hundred miles to the northward. While it is not by any means certain that the geological character of the two localities is the same, I see no reason for supposing that they are very different. At all events I give the following, in the absence of any more definite information:

> In regard to the probable degree of development and the respective extent of each of the strata constituting the isthmus, we are not able to go beyond certain conjectures, especially so in its western portion. So far as sedimentary strata are concerned, a proposed cutting through will meet with no serious obstacles, while at the same time this section will furnish choice material for building-purposes. Calcareous rock may be expected almost to a certainty within the bounds of the tertiary and secondary formation, while the quaternary, and alluvium in general, will readily yield plastic clay and clean drift-sand. Heavy rock for foundations and cyclopean work generally will be furnished by the trappean series.

I have already mentioned the stiff, tenacious character of the clays of the country, rendering them excellent material for embankments, and in several places we met a smooth blue clay exactly suited for "puddle." Near the mouth of the Merindo there are banks of a fine whitish clay, used by the natives for the manufacture of tobacco-pipes, as well as in rude attempts at pottery.

X.—HARBORS.

I was not directed in my instructions to seek for any additional information concerning harbors, and have none to present. I consider them simply to arrive at an estimate of the cost of whatever improvements they may require, as an important item in the sum total required for a canal by this route.

It is evident that, as a harbor, the Gulf of Urabá requires no improvement. But a channel must be kept open through the bar at the mouth of the Atrato, if that river is to be used as is proposed in this canal-scheme. Commander Selfridge has proposed to effect this by confining the current by jetties extending across the bar, as is now being done at the mouth of the Mississippi. Taking the practicability of this as granted, I will try to arrive at its probable cost.

For the purpose of confining the current, as is here proposed, a substantial wall must be erected on either side. A single row of piles would be speedily washed out. I have, therefore, estimated for a wall on each side of the channel, according to plans proposed by Mr. Menocal. Each wall is to consist of two rows of sheet-piles, 30 feet apart. In the space thus inclosed are to be driven two rows of long piles, 10 feet apart, in the

direction of the width of the wall and 5 feet apart in the direction of its length. These are all to be firmly bound together by longitudinal and transverse stringers, and the inclosed space filled with clay and fascines. A wall of this character would, it is believed, result in the formation of a permanent bank. It is probable that they would have to be extended from time to time. A similar wall would be required to close up such other mouths of the delta as might be necessary to give proper strength to the current.

For all this work and the necessary dredging, estimates will be found in the synopsis. The estimate is, of necessity, rough. The cost amounts to $817,780, adding to which 25 per cent. we have $1,022,225.

The reconnaissance of Commander Lullshows so conclusively that the Atrato from its mouth to the Napipi requires no improvement, that it is unnecessary to do more than allude to the subject here.

Chiri-Chiri Bay.

This proposed terminus on the Pacific side is simply an indentation in the coast, open to all winds from northwest to south-southwest. The survey made by the officers of the United States steamer Tuscarora, in 1873, shows the water to deepen rapidly, the 5-fathom line being but about 1,300 feet from low-water mark.

The bottom is mainly sand, and affords good holding-ground. Violent gales are of extremely rare occurrence in that locality, and no trouble would be likely to be experienced for the want of a more land-locked harbor at that terminus.

A very heavy surf rolls in on the beach at all times, occasionally rendering landing a hazardous operation. To protect the entrance to the canal from this surf, and to afford a refuge for disabled vessels, it is proposed to form a basin by two moles or breakwaters. The longer of these two starts from the shore to the northward of the canal and bends around to the southward, so as to protect the entrance from the swell that sets in parallel to the general direction of the coast. The shorter one projects from the shore to the southward of the canal, extending to the 5 fathom line. This is intended to intercept, as far as possible, the swe that may be reflected around the end of the long mole.

The water deepens so rapidly that, in order to secure a proper width to the entrance, the head of the long mole has to be extended to the 8 fathom line. This great depth necessitates an enormous mass of material. Calculations give the amount of 861,200 cubic yards as necessary for the two moles.

This material will be taken from the excavations of the Pacific slope and the western end of the tunnel. The sums already allowed for excavating this material are supposed to include the cost of dumping it at the most convenient points. In allowing, then, for the cost of the breakwaters, we must consider what additional sum will cover the extra expense of dumping it exactly where wanted to give the required shape and slope. For this purpose $2.50 per cubic yard is supposed to be sufficient. At this price, the cost of the moles becomes $2,163,000; add 25 per cent., $540,750; total cost, $2,703,750.

XI.—SYNOPSIS OF ESTIMATES.

Lengths and limits of divisions.	Miles.
Eastern division from Atrato to basin	20.63
Middle division from basin to tunnel	4.82
Tunnel division	3.50
Western division from tunnel to Pacific	1.30
Total length of canal	30.25

Estimated cost of the canal.

Excavation and embankment	$28,697,398
Tunnel	33,241,923
Locks	5,049,214
Culverts	3,031,405
Side-drains	2,449,953
Dam for crossing Napipi	616,057
Aqueduct from Rio Cuia	548,726
Diversion of rivers	1,670,159
Grubbing and clearing	191,900
Breakwaters at Chiri-Chiri	2,613,000
Improvements at mouth of Atrato	817,780
Light-house at each terminus	60,000
	$78,557,515
Add 25 per cent. for contingencies	19,639,379
Total estimated cost of canal	$98,196,894

XII.—LOCAL ADVANTAGES AND DISADVANTAGES; GENERAL REMARKS.

The closing paragraph of my instructions required me to ascertain, as closely as possible, whatever local advantages or disadvantages might exist, favoring or interfering with, the construction of a ship-canal.

Compliance with this order does not require me to enter into any statement of comparative advantages and disadvantages, but simply, taken in it broadest sense, to present my views as to what condition would be likely to be found favorable to the construction, maintenance, and successful operation of a canal by this route, and what unfavorable, exactly as though it were the only route in existence.

The following are all that have occurred to me with what attention I have been able to give the subject. Those accustomed to the contemplation and execution of great engineering schemes will doubtless see many more on both sides, while it is quite certain that, in the actual execution of the work, many contingencies and complications will arise that even the best minds will now be unable to foresee.

That such contingencies and complications will be likely to array themselves on the unfavorable side rather than on the favorable, cannot be denied. Still, it is by no means impossible that more favorable conditions will, in some cases, be found than have been anticipated, and the execution of the work correspondingly facilitated.

Advantages.

1. Shortness of artificial channel required.

2. Good harbors. That on the Atlantic side is all that could be desired, while, on the Pacific, there is deep water, with good holding-ground, and the region is seldom visited by violent storms.

3. The cutting mainly in rock or stiff, tenacious clays. In such materials the amount of excavation required can be reduced to a minimum. The clay will form stable embankments, and its impervious character will greatly reduce losses from filtration and leakage.

4. Proximity of the heaviest work to the Pacific coast, rendering transportation of labor, "plant," and supplies comparatively inexpensive.

5. The greater part of the work to be performed lies within a healthy region, for the tropics.

6. Abundance of good timber for construction.

7. Absence of high winds along the canal-line. Transit would be greatly impeded in any canal lying through a region subject to violent winds.

8. Freedom from liability to terrestrial convulsions of a nature likely to affect the permanency of the canal-works.

9. Absence of large streams, or of deep valleys to be crossed at a high elevation.

10. Friendly attitude of inhabitants and disposition of government to grant favorable terms.

11. Fertility of the soil. Under proper management the country in the vicinity of the line could be made to produce the greater part of the supplies required by the laborers.

Disadvantages.

1. The necessity of resorting to a tunnel. This, while it is no doubt practicable, involves uncertainty in estimates of cost, great expense in construction, and a probable increase in the difficulties attending transit, especially for large ships.

2. The steep descent of the Pacific slope, requiring the grouping of a large number of locks, and consequently increasing the liability to accident to the works.

3. Very heavy cuttings required in the valleys of the Doguado and Chiri-Chiri.

4. Limited water-supply during dry seasons.

5. Liability to damage to works from sudden floods. It is believed that this contingency is well provided against in the accompanying plans, yet the liability to sudden and violent floods in a hilly country subject to excessive rains cannot be overlooked.

6. Excessive rains, likely to wash away embankments while in course of construction and to interfere generally with the progress of the work.

7. Shortness and uncertainty of the periods yearly well suited to carrying on the work of construction.

8. Undeveloped state of the country and scarcity of native labor.

9. Remoteness from the great commercial centers of the world.

In concluding this report I have to state my belief that, with all the imperfections with which our survey is justly chargeable, it affords, in connection with the previous surveys of Commander Selfridge, all the data necessary to a reasonably close approximation to the merits of the Napipi route.

The progress of the survey developed an amount of work greatly in excess of what had been anticipated. To have made the survey in a manner entirely satisfactory to myself would have required at least three times the force at my disposal. I felt especially the need of more officers. And I would suggest this as a point worthy of the consideration of future explorers. An intelligent and efficient officer, ready to turn his hand to anything, can often accomplish a vast amount of valuable work without other assistance than can be afforded by the natives of the country, while a large number of men without the intelligence to properly direct their labors are worse than useless.

It is easy to see, then, that to accomplish our task, even in an imperfect manner, the heartiest co-operation and the greatest personal exertion were required on the part of every member of the expedition, officers and men.

That this hearty co-operation existed and that these personal exertions were put forth, it cannot be necessary to state. In my associates in his work I was certainly most fortunate, and to one and all my heartiest thanks are due.

Lieutenants Eaton, Sullivan, and Paine are already so well known in

connection with works of this character that I am sensible of the fact that no words of mine can add to their reputation. Yet it is my pleasant duty to testify to the ability and indomitable energy that they severally displayed in the performance of the severe labors of the past season.

To Lieutenant Eaton fell the unenviable task of carrying the survey through the pestilential morasses near the Atrato. The sufferings of his little party while engaged in that work may be inferred from the fact that not one escaped a severe attack of fever as the result of the hardships and exposure to which they were subjected. It was only by the most stubborn perseverance and untiring labor, directed with most excellent judgment, that an unbroken line of levels over this section was obtained.

Lieutenant Sullivan's services in making reconnaissances to develop the topography of the country, alone, to say nothing of his other multifarious duties, were invaluable. Severe labor was required of the party under his command, which carried the survey up the rugged valley of the Doguado and over the divide, where transportation by water was, of course, out of the question, to the Pacific. He also relieved me of much extra care by assuming entire charge of our provisions and stores and by attending to the hiring and paying of the native laborers. In this latter, a trying task, he exhibited great tact and endless patience. We all owe him thanks for the thoughtful attention to which much of our comfort in camp was due.

Lieutenant Paine, in addition to his severe daily labors in the field, took general charge of the meteorological observations and of the experiments for ascertaining the flow of the Napipi. These duties required from half an hour's to an hour's extra labor each day—no slight matter when one's regular duties are of the most laborious and exacting character; but they were always cheerfully and carefully performed. His arrangements for determining slight changes in the level of the Napipi were ingenious, and his results may be relied upon as accurate. The rapid progress of our survey was also due, in a great measure, to the skill with which he handled the gradienter.

Ensign Barroll took hold of the work, which was entirely new to him, with such ability and zeal as to compensate in a very short time for lack of previous experience. He was always ready for hard work, and when the party engaged in the survey of the line for the aqueduct became so crippled by the sickness of its members that further progress seemed impossible, he volunteered to carry the rod, and did double duty as rodman and recorder for the rest of the survey. His services throughout were of the greatest value.

To Assistant Surgeon Norfleet, also, the work of the expedition was a new experience. He was always attentive to the sick, and assisted constantly and effectively in the work of the survey, outside of his own particular department.

To the care of Commander Selfridge, who was good enough to attend to the preparation of the provisions for the expedition, we were indebted for an ample and palatable ration. I am also under great obligations to Commander Selfridge for valuable suggestions in regard to the prosecution of the survey and the preparation of its results.

To Captain Barrett and the officers of the Canandaigua we all owe hearty thanks for courteous consideration and many kindnesses, as well as an evident desire to forward in every way the interests of the expedition.

I have elsewhere expressed my appreciation of the kindness of Mr.

Menocal in affording me assistance in the preparation of the data acquired by the expedition, at the expense of frequent drafts on his otherwise fully occupied time.

To W. H. Hutton, civil engineer, and Alfred Duvall, civil engineer, of Baltimore, and S. T. Abert, United States civil engineer, at Washington, I am likewise under many obligations for their kindness in replying promptly and fully to my request for an expression of their opinion on engineering questions.

Finally, I may say that, on the part of every one with whom I have been brought officially in contact, while engaged in this work, I have received such ready and effective assistance that, with the most ordinary care on my part, success was assured.

Trusting that the objects for which the expedition was sent out have been as well fulfilled as circumstances would allow, and thanking the Department for the confidence with which it has honored me,

I am, sir, very respectfully, your obedient servant,

FREDERICK COLLINS,
Lieutenant.

Hon. GEORGE M. ROBESON,
Secretary of the Navy.

REPORT OF ADMIRAL D. D. PORTER.

WASHINGTON, D. C., *November* 13, 1875.

SIR: I beg leave herewith to submit my annual report.

The proper inspections of ships going to and returning from sea have been made, and a fair condition in all requisites has been exhibited, excepting in the exercises of sails and spars. The infrequency of these exercises of late has caused a material falling off in the efficiency of our naval vessels.

The reports of exercises are now so meager that they merely serve to show how very little is done in this direction, and the impossibility of keeping up proper drill and discipline, without stringent orders and constant surveillance; so that these important matters shall not be neglected, owing to the indifference of those who do not appreciate their necessity.

I fear that general order No. 189 has been misconstrued, and that in flag-ships especially, exercises aloft have not been frequent, on the plea that said order only calls for them occasionally, and that the sails and running gear are recommended to be unbent and stowed away whenever it will benefit them to be under cover. The general-order, then, seems to discourage these exercises, so important to the navy; at least, such is the prevailing opinion, and I would, therefore, suggest that it be so far modified as to renew general-order No. 128, and that the exercises of lower yards and top-masts take place every two months or six times a year.

In the year 1842, it was the custom in the Mediterranean squadron to send down royal and topgallant yards and masts, lower yards and top-masts every day at sunset, and send them up again every morning, the former operation requiring five minutes, the latter nine, and these exercises were not considered troublesome, or detrimental to the masts and yards.

Within the past three years we have had several ships, the Colorado, Alaska, and others, that have prided themselves on doing quite as well as those I have instanced above.

It must not be forgotten that in time of war, ships provided with sail and steam power will be required to go into a fight at short notice, and having to proceed under steam, it will be necessary to strip for action, which can only be accomplished with rapidity by those who have previously paid attention to the exercises.

I am pleased to say that in no instance has there been found any neglect of ordnance exercises, and generally, in this respect, the vessels of the navy have been exceedingly well drilled.

Comparisons are often considered invidious, but I deem it due to Captain Barrett, of the Canandaigua, and Captain Harmony, and others who have commanded the Hartford, to draw your attention to the great care exercised by these officers in the preservation of their ships, and to the admirable condition in which every department on board these vessels was found.

For many years past our receiving-ship system has been most inefficiently conducted, and the substitution of the larger class of frigates kept ready for service, is a step in the right direction. The old hulks formerly used for the reception of recruits contained none of the elements of ships of war, and afforded few facilities for training men. They were wanting in many of the comforts of cruising vessels, and were almost entirely deficient in that discipline so essential to men crowded together on shipboard.

By the substitution of first-class vessels in place of the old hulks, the Government can rely on having several large ships ready for immediate service near home, while their places as flag ships abroad can be better supplied by a smaller and less expensive kind of vessel.

Of the four large frigates to be used as instruction and receiving ships, the Wabash, at Boston, is sound in the hull, but her engines and boilers are worn out. The Colorado, at New York, is unsound in her upper works, her main boilers are somewhat worn, and her superheaters are out of repair, but her engines are in good condition.

The Minnesota, at New York, used as a flag-ship for the Vice-Admiral, and as an instruction-ship for boys, is sound in hull, and the machinery is in good order. The Sabine is in good condition.

The defects in these vessels should be made good, for, although useless to contend with the new style of iron-clads, and for want of steam-power incapable of acting efficiently against the commerce of an enemy, yet in an emergency they would serve a useful purpose near home until such time as we could substitute for them ships of greater force that would properly indicate the naval strength of the nation.

The best step towards the advancement of the naval service is the organization of the school of instruction for boys on board the Minnesota, at New York. This school has been started under such favorable auspices as to create the hope that the system will be so extended as to meet the pressing requirements of the Navy.

If the system thus inaugurated is carried out, it will place our Navy on a proportional footing with those of other powers, and will introduce into the service a class of petty officers and seamen, the want of which has been seriously felt for many years.

A careful examination of the Minnesota demonstrated that the system of instruction was working most successfully. The boys are well instructed by naval chaplains in the rudiments of an English education, in seamanship by the boatswain, and in ordnance by the gunners. They are well drilled and disciplined by line officers, and the system, although in its infancy, gives every promise of success.

The boys already enlisted are active, intelligent lads, of fine physique,

and good moral character, and are contented with their situation, which is really a great advantage to them. Something, however, is still required to bring the apprentice system to perfection.

On several previous occasions we have established such a system on a small scale, but for want of legislation by Congress, and from the unwise opposition of several naval officers, the scheme has invariably proved abortive. It will require more than a departmental interest to make this present attempt to man the Navy with native Americans a success, and a greater number of boys must be allowed than are at present authorized.

I have several times brought to the notice of the Department the necessity of establishing, by law, a *permanent* apprentice system—one that will not be injuriously affected by any changes in the administration of the Navy, and I have never hesitated to recommend that two thousand boys should be allowed, as an economical method of supplying the Navy with seamen upon whom the country could rely in time of war. * * * * *

The present arrangement with regard to apprentices is the best that has ever been established, and I can see no reason why it should not now become permanent, the impracticable features of former systems having in this instance been excluded.

It is difficult to form an adequate idea of the disagreeable position of a commanding officer abroad, who is surrounded on the deck of his ship by men of many nationalities, who have little attachment to the flag flying from the peak, and who, in many cases, are ignorant of the language in which orders are given. An officer can hardly take much pride in commanding a ship manned by such cosmopolitans.

Fortunately we have not yet been placed in a position to experience serious results from this state of affairs, such as a refusal to defend the flag, or other mutinous conduct, but there is every reason to suppose that in case of war with a foreign power we should not be exempt from this difficulty. Our heterogeneous crews might decline to fight, on the ground that they had not enlisted for war, and a state of things would be brought about which could never occur were our ships manned by *bona fide* American citizens, in whom the love of their country's flag is at least as strong as it is in the breast of any other nation.

The system of manning a navy with native-born seamen was long ago brought to perfection in Great Britain, and no other regulations are necessary further than those I laid before you in my annual report for 1872, which were based on the British system, with such necessary modifications as would adapt it to our particular naval policy.

It remains now for Congress to take an interest in this most important matter and enact laws to keep the number of enlisted boys at two thousand, until we have a body of ten thousand petty officers and seamen, after which the number of apprentices could be limited to keep up a general supply.

To say nothing of the advantage to the naval service, the benefit to the country at large must be considered in thus establishing, without material expense, a school from which to graduate a good class of officers for the merchant-marine; for, by culling the good from the bad, the apprentice-system would in a few years produce a fine set of men, who, although not sufficiently educated to hold the position of commissioned officers in the Navy, would be well qualified for subordinate positions elsewhere when their terms of service had expired. Graduates from the apprentice-school having been brought up in the Navy, would carry with them into the merchant-marine that strict discipline, for the want of which so many difficulties are constantly occurring on shipboard.

Our country can easily furnish a sufficient number of boys of good character for the purpose I have indicated, and even now parents are laying aside the natural objections they have hitherto held against placing their sons in the Navy, and are coming forward to offer them for the defense of their country.

It may seem unreasonable to find fault with a system which has hardly had time to get fairly under way, but my excuse must be the great desire I have to see a perfect plan adopted without delay, embracing such provision for the apprentice-boys that parents can raise no objections whatever to their enlistment.

It is not desirable, on their admission into the service, to have these youths come in contact with vice in any form, yet this can scarcely be avoided when the drill-ship is also used as a recruiting-vessel for seamen and for the assembling of a large number of enlisted men previous to their being sent on a cruise. The boys are necessarily thrown in contact with these men, among whom are some bad characters, and the impressions the youths receive through such association are very detrimental to them. This is unfair to the parents of the boys, who have a right to presume that their sons will not be subjected to immoral influences, and if this association is continued it will greatly add to the difficulties of permanently establishing a good system. I would, therefore, recommend that drill-ships for boys be used for no other purpose

I would further suggest that each drill-ship have attached to her a quick-working sailing-vessel of 300 tons, for the purpose of training the apprentices at sea. These could be kept on the northern coast in summer and on the southern coast in winter, losing no time on account of weather, and picking up recruits in both sections.

Especial inducements should be offered to retain the boys in the service after their term of apprenticeship has expired, and we of the Navy do not think it asking too much of Congress to legislate liberally in regard to this matter, since little or nothing has hitherto been done for a most useful class of men—the sailors of America—and the Government would really be the greatest gainer by such action.

In former days the British navy was in a very bad condition in regard to the personnel of its seamen, but by the introduction of an apprentice system, which has been fostered with great care, the service has been completely regenerated. I recently visited one of their large ships, the Bellerophon, at Newport, R. I., and was much impressed with the superior efficiency of her crew over any that we possess. Their ship is their home and the service is their profession, in which they expect to spend their lives. I regret to say that the attention paid by the British to the comfort and happiness of their seamen, and the inducements offered the latter to remain in the service, offer a strong contrast to the state of things prevailing in the United States Navy.

I take this opportunity to commend Capt. A. W. Johnson for the zeal and intelligence evinced by him in the inauguration of a system of apprenticeship so important to the Navy, and I am satisfied that, with good instructors, the plan cannot be otherwise than successful.

I beg leave to draw your attention to the double-turreted monitors now being repaired, and to offer some suggestions, that if followed will, I think, go far to make them the most effective vessels of their class afloat. In the alteration of the smaller monitors, everything has been done of which they were susceptible, as it was impossible to convert them into very effective vessels. They are but light skirmishers at best, and can never play an important part in war. They were built for ascending our rivers during the late conflict, and answered very well the

purpose for which they were intended; but since they were designed, the science of ordnance has made such advances that they are now comparatively weak vessels. In future the smaller monitors may be useful in connection with forts for the defence of our harbors, but cannot be depended upon to take part in a line of battle.

In the fleet maneuvers near Key West, these vessels attained only a speed of six knots. Their smooth-bore guns will only damage the four-inch iron-clad within an area of 900 yards, so that, at the most, these monitors can only be considered as auxiliary defences, not to be depended upon in cases where the honor and success of the Navy are concerned.

The construction of such vessels ought not to form part of the policy governing the Navy of to-day, for, like the original Monitor, they are almost things of the past. Appearing at a fortunate moment, the Monitor did good work for the nation, and established such a reputation as led our people to believe in its eternal fitness for all naval war purposes, but in truth the original Monitor, if in existence to-day, would not stand one shot from the average rifle-gun, and could be run over and sunk by an ordinary iron-clad as easily as a river steamer would run over a yawl-boat.

The double-turreted monitors, however, offer a greater scope for the talents of constructors and engineers, provided they duly consider what will be required of these vessels.

Foreign navies have about reached the point where an average class of gun will be used by them. The largest now in use, which can be worked with rapidity, is the 12-inch wrought-iron muzzle-loader of 35 tons weight.

In making changes, it should be our aim to resist the shot from this gun, which at 200 yards perforates 15 inches of solid wrought iron, backed by 18 inches of hard wood and a skin of 1¼ inches iron plate; otherwise, the double-turreted monitors, when completed, represent an inferior power little more effective than the smaller vessels of their class, and one of them would be incapable of resisting the combined attack of two of the latter. If the monitors have not great speed, they will be inferior to a fast half-armored vessel that can keep her distance, while gradually knocking them to pieces with 9-inch 12-ton guns.

There is now an opportunity to commence what has long been advocated, namely, the construction of a class of vessels that could appear in line of battle, twenty-four of which would represent the naval strength of this nation, as the twenty-four heaviest iron-clads of England and France indicate the naval power of those countries, and constitute a force that would drive an enemy from their shores.

During the naval contests between England and France, their respective powers were estimated according to the number of ships of the line frigates, sloops-of-war being considered in the light of dispatch-vessels, or eyes to the fleets, and they did not take part in the great engagements, except to tow crippled ships or prizes out of action. It will be so with all monitors that cannot resist the heaviest iron-clads; they will be unfit to enter a line of battle, incapable of preventing the entry of our ports by an enemy, and unable to cope with the heavy guns of ordinary forts. They will therefore represent no decided power either for offense or defense, unless provided with a shield of iron and wood sufficient to resist the average rifle-gun, and with speed to get within striking-distance of an enemy.

No matter how many wooden vessels, with fair batteries, we may possess, they add nothing to our fighting force except against light-

armed ships like themselves and merchant-vessels, nor would they avail anything to keep an enemy out of our harbors, or to attack forts armed with modern ordnance. They are vulnerable at all points, and are in danger equally from shots entering their boilers and powder-magazines.

Formidable as were frigates a few years ago to cut up commerce and to overcome heavy privateers, any engagements they fought on the ocean did not materially affect the result of the war. In the hostilities between Great Britain and France, the former crushed the great fleets of her rival, causing the smaller ships to take shelter under forts and in secure harbors, which goes to show that the power of a navy was in its ships-of-the-line, and not in its smaller vessels.

The exigencies of the late war caused many variations in the planning and building of our large monitors, but there is now an opportunity to rebuild them all on approved plans that will meet every requirement. I would, however, recommend that, before this work is largely entered into, the professional knowledge of the officers who in time of war will have to fight these vessels, be made available in their reconstruction.

Many mistakes were committed in the plans and construction of our monitors, and over $20,000,000 were wasted on a collection of "light-draught monitors," which, when finished, could not bear the weight of their guns or turrets. When we add to the enormous amount thus lost the ten millions worth of wooden monitors and other vessels that rotted on the stocks, we have a sum thrown away that would have given us twenty-four properly-built iron-clads, and established without cavil our naval power for years to come.

At present the United States stand No. 9 on the list of naval powers, but taking into consideration the amount of money we have wasted in mistakes, we are the third naval power of the world in point of expense.

In view of such a vast outlay since the year 1861, resulting in so little profit, does it not strike you that something is wanting to bring our naval system to perfection, and that the professional knowledge of officers of reputation should be made available in order to produce vessels that might at least be able to float?

Other nations, it is true, have made mistakes, for the iron-clad problem was a new one and at first difficult of solution, but none have suffered as much as ourselves from errors in construction, and none could so illy afford it.

Every monitor that was laid down during the late war is now a legitimate subject for reconstruction. Some of them were great vessels in their day, and reflect no discredit on any one for the mistakes in their construction, which were not then so apparent as at present. We could rebuild, from the materials of the double-turreted monitors, vessels that would hold their own in any line of battle.

For fighting purposes I prefer turreted vessels, of the monitor class, to any others; and the more I examine the various systems of foreign navies, the more I am convinced that we started on the right plan for coast-defense, and should now perfect it by building vessels unsurpassed in invulnerability, guns, and speed, and with a crushing-power that nothing can withstand.

The plan of placing the pilot-house on the top of a monitor's turret shows a lack of ingenuity, for this is the most exposed point in the vessel, and is liable to be swept away by the first heavy shot that strikes.

I would recommend that the steering-apparatus be placed below, with a small portion of the deck above it raised and heavily plated, with apertures to look through, whence the commanding officer could com-

municate directly with the turret, or give orders from that quarter or from the deck to the helmsman. Above all things, the helm should be made secure against damage; and by putting the steering-apparatus on top of the turret, the inventor went out of his way to avoid a very simple plan.

Another defect in the large monitors is the heavy iron bridge which passes from one turret to the other. It is well to have something of the kind, but it should be very light, and only wide enough for a man to pass along. No one can reasonably expect to find any luxuries on board these fighting-machines, which are kept for use in emergencies, and in case of an invasion would only be employed at the entrances of our harbors along our coast.

There was one feature of the original monitor which, I think, for a fighting-vessel, was an excellent one; namely, the "overhang" on the side, which prevented the hull being penetrated if the vessel was struck by a ram. The value of this contrivance was shown in the contest at Hampton Roads, where the Merrimac rammed the Monitor, merely turning the latter half way round, and doing her no damage whatever. The overhang also adds to the stability, and protects the vessel's sides against shot.

All these matters deserve the greatest attention, and we should exhibit our ingenuity in the further improvement of these vessels, and not follow blindly the plans laid down some thirteen years ago, which, though effective against the then existing navies of Europe, have been so far outstripped that they can only be considered as types of a past age.

We of the Navy regret to see no evidence as yet that we are to have the average rifle-gun in the service, and the 35-ton gun for the monitors. These vessels may be made invulnerable, and yet will be of inferior force while they continue to be armed altogether with smooth-bore guns, which are only serviceable at close quarters. Great anxiety is felt by naval officers on this subject, and if we should be caught in an emergency without rifled guns the whole world will be amazed at our indifference to so important a matter. Six hundred thousand dollars is little enough for Congress to give the Navy to provide for this great necessity.

I would recommend the construction of several more torpedo-vessels on the model of the Alarm, with improvements. As regards speed, the vessel in question is not quite up to my ideas, but her sea-going qualities are unsurpassed. She could not founder unless cut in two by another vessel, and if properly handled in action would stand a number of shots without receiving material damage.

Of course it is out of the question to make a torpedo-vessel invulnerable, and at the same time give her sea-going qualities, speed, and the power of working quickly.

You witnessed the performance of the Alarm in Newport Harbor, and the facility with which she entirely demolished a hulk by the use of a few pounds of powder, which was not even in contact. She can fire with safety 40 pounds of dynamite, or 100 pounds of gun-cotton, equal to 200 pounds of powder, an explosion which, if properly delivered, no vessel can withstand.

Although I have not yet succeeded in obtaining as much speed from the Alarm as she is capable of, it is because she has never yet carried the steam her boilers are calculated steadily to carry, by 25 pounds, notwithstanding which she has made twelve knots per hour on a measured mile, and will make nine and a half knots steadily, with moderate steam, in smooth water. She has heretofore carried a wide rudder, which is a great drawback, diminishing her speed very much by the

reaction of the water from her wheel against it. I shall remove this obstacle and expect better results hereafter.

The rudder in question was merely put in the vessel to steer by while she was being towed to Washington, and, as it is keyed in, it has been found difficult to unship without going into dock.

While the world is discussing the project of a safe sea-going steamer, I beg leave to present this plan as one which can be little affected by the elements. It would be impossible to sink a ship constructed in this manner by the ordinary accidents at sea, and she could only be sent to the bottom by another vessel running her down and cutting her in two, a liability from which not even the strongest is exempt.

Even in a gale of wind the Alarm rides the waves like a cork, as was demonstrated on her passage to Washington. She has six water-tight bulk-heads athwartships and nine water-tight compartments between the skins, that is nine on each side and nine between the bottom skin, or eight water-tight frames. There is no racking, jerking, or pitching in a gale, and it is believed that no stronger vessel was ever built. She certainly does credit to those who had charge of her construction, and is a proof of the skill of the mechanics in the New York navy-yard. I believe that a ship on the principle of the Alarm, built for the merchant passenger-trade, would run with safety for years, carry her cargo perfectly dry, and be the most popular passenger-ship afloat.

In this age of fast steamers and avaricious owners, the subject requires serious consideration, for the lives and comfort of thousands are daily imperiled in the dangerous machines which transport them across the ocean, and such terrible calamities have occurred through the use of inefficient passenger-vessels, that although this is not exactly a matter for naval interference, I deem the present a good opportunity to draw public attention to the subject.

Last summer I inspected at Nantasket Beach, Massachusetts, the Rider life-raft, improved under my direction for use in the Navy, for which a certain number have been ordered. As a test of the capacity of the raft it was fitted with a sail and dispatched from New York to the Isles of Shoals, off Portsmouth, N. H., through the average weather of the season, and some of the way it was pretty rough, after which she returned under sail to Nantasket, where I found her, after her hard usage, in perfect order. This raft could sustain in the water fifty persons, and could be lifted and carried by four men. With practice, such a raft could be put together and inflated in ten minutes. She sails quite as well as an ordinary boat, and is much safer. After the raft left me, it proceeded under sail to Long Branch, where, with several persons on board, it landed on the beach through a heavy surf. Altogether, nothing could be more satisfactory than its performance.

No ship in the Navy is supplied with boats sufficient to transport all her crew in harbor, much less at sea, and the value of such a life-saving apparatus as the one in question cannot be overestimated. If you will remember, I have labored earnestly to have our ships provided with the proper life-preserving apparatus, for I know how much more cheerfully and fearlessly a sailor will do his duty when he knows that his life is looked after. The perils of the deep are many and great, and it is as little as we can do, when we send a ship to sea, to give the men a chance for their lives in case of disaster.

During the past summer I visited an ocean passenger-steamer, and was surprised to find that she had not a single life-raft on board, but instead, a number of unwieldy boats, liable to be stove in a sea-way while being lowered. The introduction of life-rafts would be the means

of saving many lives in passenger-vessels. It is an easy matter to throw a raft overboard that cannot by any possibility be stove, and lower the shipwrecked people down to it. Those who jump frantically overboard have a soft place to fall, with plenty of life-lines hanging from the raft. No matter how high the sea is running, or how much the raft bumps against the ship, nothing gives way; there are no ribs to break, and the life-preserver hangs by the wreck, a safe shelter for all who manage to reach it.

The great loss of life in the wreck of passenger-steamers is generally due to the people crowding into the boats while lowering, and burdening them with a weight their tackles are not calculated to bear. It is difficult to lower a boat in a sea-way, with only its crew on board; how much greater, then, the difficulty when crowded with frightened people. In a large majority of cases the boats swamp when they touch the water. Sometimes a cowardly crew will launch a part of the boats and provide for their own safety, leaving the passengers to look out for themselves. There are, perhaps, a number of boats on deck and in their chocks, with tackles and stoppers secured and covered with canvas, which defy the inexperience of landsmen or embryo sailors to get them into the water. There is nothing, however, to prevent any man from pitching a Rider life-raft overboard with a rope attached. No matter which side comes uppermost, it is the right side, provided with oars, steering-apparatus, life-lines, and a secure footing. Boats may be useful to take passengers from life-rafts after the latter have relieved them from the ship, but it is the merest chance when a boat full of people escapes from a ship's side in a gale of wind.

In all we do in the Navy, great care is taken. Our passages are not made in a hurry. In gales of wind we lie to carefully, and seldom lose a ropeyarn; but should such a catastrophe occur as happened to Her Majesty's ship Vanguard, then we require the life-rafts. If a ship suddenly plunges under water, she carries her boats all down with her, unless they happen to be cast adrift at the moment and ready for lowering. Not so with the life-raft. A stroke with a jack-knife cuts its fastenings, and it floats safely amid all the *débris* of the wreck, offering an asylum to such unfortunates as may be struggling in the water. One raft of this description would have saved the lives of all the passengers of the ill-fated Schiller when she was lately lost on the Scilly Islands. Her boats were crushed alongside, where a Rider raft would have floated in safety. It is due, then, to the Navy that these rafts and their appliances be put on board every ship of war. If they should not be needed, so much the better. They will last, with care, for ten years. The Navy Department, it is true, has no control over the affairs of the merchant-marine; but in view of the interest of our traveling public in this question, I would ask whether we do not owe it to the lives of our citizens to secure the enactment of laws that all passenger-ships sailing from our ports be provided with at least two gutta-percha life-rafts of approved pattern.

I would respectfully call your attention to the improper manner in which the smoke-stacks of vessels of war are placed, so that the main-sail cannot be used at all, while the other sails and yards on the main-mast are destroyed by heat.

For years the attempt has been made to obtain a cruising ship of war which should combine sail and steam power, for without a proper combination of both elements no vessel is fit for cruising. When we succeed in sparring a ship properly we are pretty sure to place the smoke-stack in such a position as to render the sails unserviceable, or if we succeed in the

steam department there is some drawback in the construction. Hence, since the introduction of steam we have never built a perfect ship of war. The constructor or the engineer gets the advantage one of the other, to the detriment of the vessel in hand; when, if the matter was submitted to a neutral party, who would see the necessity of compromising in matters of such vital importance to the Navy, it might be easily arranged.

In time of war we must depend on cruising vessels to cut up an enemy's commerce. For this purpose they must be able to keep the sea for long periods and go great distances from home, and it is absolutely necessary that the smoke-stacks should lower below the bulwarks, and should be a sufficient distance forward of the mainmast to preserve the spars, sails, and rigging from the heat.

While we are building new ships we are not advancing in the matter of speed, the great requisite of a cruising ship of war; and we should, therefore, neglect nothing that will add to the sail-power or secure a happy combination of steam and sail when occasion may require.

While referring to this matter of speed, I would call your attention to a class of vessels that are dropping out of the service. I allude to the Congress class, the most efficient kind of ships we have had in the Navy, and the model of which for steaming and sailing cannot be surpassed. All these vessels want is a little more beam, steam, and sail to make them the fastest afloat. I recommend that they be rebuilt of live-oak, retaining nearly their present shape, and giving them additional steam-power, and that they be kept on the stocks until wanted. For cruising purposes this class of vessels will be found the most serviceable. They require comparatively few men, and have good accommodations for officers and crew. They have spar-decks, a fair capacity for coal, and make good speed under half their boilers.

For the general increase of the Navy I recommend, besides those to be rebuilt, that twelve ships of this class be constructed of iron, and kept on the stocks ready for sheathing with wood and launching at a moment's notice; their boilers fitted and their powerful machinery stored near by. Neither time nor dry-rot could affect these vessels, as they have done the beautiful ships now decaying on the stocks, and we can always have a certainty of possessing a reserve of good cruising-vessels when necessity requires.

I am not an advocate for iron cruising-ships, as a general thing, since wooden vessels have several advantages over them; but the way I have indicated is the only method by which we can hope to keep up a reserve fleet of clippers on the stocks, without the liability of losing millions of dollars' worth of ships by decay.

While the vessels lately built seem, so far, to be fair models, they are defective in not having a light spar-deck, which would add greatly to the comfort and accommodation of their crews. We should build no cruising-vessel of less than 1,200 tons, and none without a spar-deck to afford complete protection to the crew and enable the ship to carry a full amount of coal, stores, and provisions for long cruises.

In case of necessity, a sufficient number of the very small class of vessels can be purchased at short notice; but it is not likely that we should require many of these, except for use in Chinese waters or on the river La Plata.

To obtain the maximum amount of speed and to enable a vessel to keep the sea in all weathers, she must be of considerably more than 600 tons measurement, which is not over twice the size of our largest tugs. Vessels smaller than this would have little power to contend against an ordinary enemy or to keep the sea.

The fine live-oak frame of the Niagara is decaying for want of proper attention. It was originally intended, when the ship was pulled to pieces, to rebuild her with a light spar-deck, put in new and powerful engines, arm her with heavy guns, and preserve to the Navy one of the finest ships we have ever had. She would make a most formidable cruiser, if the original plans were carried out, and would have no superior of her class afloat. Her frame is worth as it stands $150,000, and that would be so much saved if the ship were rebuilt.

When vessels return from sea they have, as a rule, been laid up, and without proper care for their preservation they frequently require to be nearly rebuilt before proceeding to sea again. The proper plan would be to put a ship in thorough repair the moment her officers and crew are detached, and then, with all her equipment, ready to go on board at a moment's notice, place her in charge of an officer and a few men, who would keep her in condition for immediate service. Nothing deteriorates faster than a ship laid up in ordinary, with no one on board to look out for her.

I have on several occasions referred to the importance of a good merchant steam-marine, and the advantage properly-built passenger-vessels would be to the Navy in case of war. Unfortunately, this branch of our commerce is very far from what it should be, and at least one-half of what should properly be carried in American passenger-steamers is thrown into the hands of foreigners for the want of a liberal policy on the part of the United States Government. Our commerce has, however, taken a fresh start, and we have lately constructed, and are still building, a fine class of iron steamers, of good speed, which could be made very serviceable in destroying an enemy's commerce, or in operating as rams, in conjunction with fleets, when, seizing the opportunity, amid the confusion and din of battle, they could render good service, for the fact of a vessel being heavily plated will not save her from the blow of a very light-built steamer, which, with sufficient momentum, will go through anything that floats, with little damage to herself.

It is reasonable to assume that the number of our ocean passenger-steamers will soon increase, and it would be wise for the Government to make some arrangement so as to have a voice in the manner of their construction, by which they could be strengthened at the bow, and arranged for carrying guns. This will not in the least interfere with their capacity for transporting freight and passengers. I would recommend that the vessels in question be constructed with double bottoms and sides, and the engines and boilers so disconnected from the rest of the ship by water-tight compartments athwartships and on the sides, that there would be no danger of water getting into the steam-department under ordinary circumstances. Now the first place for a steamer to leak is in her fire-room, when the fires are soon extinguished and down goes the ship.

I inclose herewith a list of vessels belonging to the iron-clad fleets of the world, which will be interesting as a reference, and to show what foreigners are doing in this direction.

I forbear to criticise any of these systems, as many are yet untried in war, but should prefer that for the present we adhere to the monitor plan, provided the vessels be of the most approved construction and of *great speed.*

No sea-going iron-clad has as yet been built on a plan which I devised some ten years ago, and to which I referred in a late report. This plan provides for the construction of a vessel of low freeboard, with a heavy

belt of iron above and below the water-line—say 24 inches in thickness—and a strong oak backing. In the middle of the vessel the plan provides for a 24-inch turret, and a fore-and-aft fire is to be obtained by two heavy guns, one to run out at the bow, the other at the stern. When not in action these guns are to be run away from the bow and stern to relieve those portions of the vessel from their weight. The ship will have a light spar-deck, and light, iron upper-works, all of which could be shot away without damage to hull or turret, In a gale, or under ordinary circumstances, this vessel would be closed up, with a grating over the turret to let out the smoke. In action the vessel's sides would be let down to enable the turret-guns to be fired. It may be objected that the freeboard would be too low to use the guns in rough weather; but this objection applies more to a monitor than to a vessel like the one in question. As a rule, ships do not fight in stormy weather; at such times they have all they can do to take care of themselves, and in an ordinary rough sea monitor hulls—such as this would be—roll only a few degrees, and there would be no difficulty in firing the guns from the center and ends of the ship. Such a vessel would have all the good qualities of a monitor, and would be able to keep the sea under sail. Small vessels on this plan (although I do not pretend they would sail like clippers) could be made fast under steam, and could carry four heavy guns, enabling them to reach any point under sail in case coal should run short. I venture the prediction that a similar class of vessel will finally be adopted by all nations for cruising purposes, as the iron plating of ships has about reached the extreme limit, and we must therefore return to the monitor hull.

In the contest between iron and shot, the latter has so far won the victory, just as bullets prevailed over men in armor, and the only way in which vessels can be made shot-proof is to build them with low freeboard and the heavy iron belt, the necessary thickness of which can be calculated to a nicety.

I once had the honor to call your attention to the personal inconveniences to which officers in command of our squadrons abroad are subjected from having to expend their pay or other private means for the entertainment of foreign functionaries, in reciprocating hospitalities which they cannot avoid accepting, and which they deem it a duty to return. You are doubtless aware that in foreign navies commanding officers are allowed a certain amount, in addition to their pay, for the purpose of reciprocating these civilities, it not being expected that they should defray from their private means the expense of returning what is intended as a compliment to their nation.

It is generally but once in a life-time of service that a rear-admiral obtains command of a squadron, and his satisfaction is greatly reduced from the fact that his last cruise is so expensive as to deprive him of many comforts to which he is entitled in his declining years.

It is not possible that the people of the United States expect their naval officers to impoverish themselves and families by returning hospitalities which are extended more as a compliment to this country than out of personal regard to the officers.

Respectfully submitted.

DAVID D. PORTER,
Admiral.

Hon. GEORGE M. ROBESON,
Secretary of the Navy.

REPORT

OF

THE SECRETARY OF THE INTERIOR.

DEPARTMENT OF THE INTERIOR,
October 31, 1875.

SIR: I have the honor to submit, for your consideration, the annual report of this Department, accompanied by the reports of the several Bureaus and institutions which, by law, are placed under its supervision.

PUBLIC LANDS.

During the year ending June 30, 1875, public lands were disposed of as follows:

	Acres.
Cash sales	745,061.30
Military-warrant locations	137,000.00
Homestead entries	2,357,057.69
Timber-culture entries	464,870.17
Agricultural-college-scrip locations	9,432.02
Approved to States as swamp	47,721.25
Certified to railroads	3,107,643.14
Certified for agricultural colleges	22,321.24
Certified for common schools	142,388.11
Certified for universities	16,454.04
Approved to States for internal improvements	8,614.25
Sioux half-breed-scrip locations	1,526.45
Chippewa half-breed-scrip locations	11,181.64
Total	7,071,271.30

A quantity less by 2,459,601.63 acres than that disposed of the preceding year.

The cash receipts were $1,779,616.27; a sum less by $690,322.23 than that received the previous year.

During the year 26,077,531.86 acres were surveyed, making, with the quantity previously surveyed, 680,253,094.21 acres, leaving yet to be surveyed 1,154,471,762.79 acres.

The quantity of land disposed of under the homestead and timber-culture laws was less by about a million and a half acres than that so disposed of the year immediately preceding. This result is attributed, and no doubt correctly, by the Commissioner of the General Land-Office, to the grasshopper plague, the drought, and the consequent dimi-

nution of emigration to the land States and Territories. Aside from these considerations, however, which are temporary in their character, he expresses the opinion that a steady diminution of such entries may hereafter be expected, growing out of the fact that the best lands subject to such entries have, in great measure, been already disposed of.

The report of the Commissioner is replete with valuable information and timely suggestions as to the expediency of changes in some of the laws relating to public lands. I would especially commend to the favorable consideration of Congress his remarks as to the necessity of a change in the Manual of Surveying Instructions, which has the sanction of law, as to the rates allowed by law for surveying mountainous districts; the disposal of timber and grazing lands; the consolidation of the pre-emption and homestead laws; the repeal of the law requiring public lands in Alabama, Mississippi, Louisiana, Arkansas, and Florida to be disposed of under the homestead acts only; the errors in the Revised Statutes, which are now the law of the land, and the reorganization of the clerical force of his Office.

SAN JUAN AND OTHER ISLANDS.

The commissioner appointed by you, under the act of 20th June, 1874, to make and report to this Department a list of all British subjects who, on the 15th of June, 1846, were in the occupation of land, lawfully acquired, within the limits of the award of His Majesty the Emperor of Germany, together with a description of the land actually occupied by each person at said date, satisfactorily performed his duties. He reported that, after due notice given by publication for a period of more than thirty days, in a newspaper having extensive circulation on the islands in question, and by posting conspicuously the notice in all the post-offices in the archipelago, he proceeded in person to Victoria, British Columbia, where he was informed by the chief factor of the Hudson Bay Company that said company would present no claim under said act. He then proceeded to San Juan and Lopez, but no British subject presented any claim under the act. You accordingly, on the 3d of August last, issued a proclamation terminating the withdrawal made by your previous proclamation of 4th February, 1873, which was issued in order to protect the rights of British subjects under the treaty of 15th June, 1846. Said termination took effect on the 30th ultimo, and the lands are now open to disposal as other public lands, except such as have been reserved by your orders for military and light-house purposes.

PATENTS.

During the year ending the 30th ultimo, 21,489 applications for patents were filed, and 14,230 patents, including re-issues and designs, issued; 42 applications for extensions were made, and 81 patents extended; 3,052 caveats were filed; 2,495 patents were granted, but not

issued by reason of non-payment of the final fees; 951 applications for the registration of trade-marks were received, and 993 trade-marks were registered. The number of patents issued during said year exceeded those of the preceding year by 685. The total amount received during the year from fees, &c., was $732,285.87, and the total expenditures were $708,874.35, leaving an unexpended balance of $23,411.52.

INDIAN AFFAIRS.

The report of the Commissioner of Indian Affairs presents the details of the transactions of the Indian Bureau for the past year, and furnishes interesting information in regard to the present condition of the various Indian tribes. The Commissioner makes several important and valuable recommendations in regard to the future management of the Indians, to which your attention is respectfully invited.

The general situation of the Indian service may be regarded as encouraging, and progress has been made during the year in perfecting and extending the Indian policy. Wherever all the elements of success have been available, the result has clearly vindicated the propriety and efficiency of that policy in the increased interest taken by both agents and Indians in the acquisition of industrial pursuits, and in the increase of peaceful disposition toward the whites. Schools are increasing in number and interest; farming, wherever the soil is suitable, is being prosecuted more vigorously and intelligently, and the desire of the Indians to prepare for themselves more comfortable and fixed abodes is becoming more general. At the important agencies of Red Cloud and Spotted Tail, in the Dakota, or Sioux Nation, however, one of the principal elements of success—a productive soil—is wanting, and no progress has been made, and none can be expected, while the present conditions by which they are surrounded shall remain. The problem of how to deal with these Indians seems as far from solution as ever, and, in fact, it has been still further complicated the present year by the discovery of gold in the Black Hills and the emigration of large numbers of miners thither. The suggestions of the Commissioner in regard to this numerous people are practical, and worthy of consideration.

There can be no doubt whatever that so long as the great bulk of the Sioux are encouraged to occupy their present locations near the Red Cloud and Whetstone, or Spotted Tail, agencies, and to roam at will over their vast reservation and west and northwest to the Big Horn Mountains and to Powder River and the Yellowstone, they can make no progress whatever, and must be fed year after year by the Government. The recommendation by the Commissioner that the two agencies above mentioned be removed to the Missouri River meets with my unqualified approval. The soil over which they now roam is totally unfit for cultivation, the location of those agencies is so remote from the railroad and river that the cost of supplying them is greatly enhanced, and their isolated position gives them almost entire immunity from Government

control whenever they are disposed to commit any outrages upon the person or property of neighboring settlers or more friendly tribes.

The removal of these agencies to theis Msouri River, at some point or points between the mouth of the Cheyenne River, and Fort Randall, to be hereafter determined upon, will result in greater economy and convenience of supply, and greater facility to restrain and coerce refractory Indians whenever the necessity arises. It will also locate them where there are arable lands, good water, and abundance of timber and grass. I therefore suggest that the appropriations in future shall be made conditional upon this removal, and that none of the supplies or annuities hereafter granted by Congress shall be issued to these Indians, excepting at some point or points on the Missouri River, where those agencies shall be permanently located. If this suggestion shall receive the favorable action of Congress, a proper location will be selected, and those agencies removed prior to the beginning of the next fiscal year.

The relative location of the Indians now supplied at Fort Belknap, Montana, to the Missouri River, is so nearly analogous to the location of the Sioux, above referred to, that I have already ordered their removal to the river, and the abandonment of the present agency at Fort Belknap, for the reasons given above in regard to the removal of the Sioux at Red Cloud and Spotted Tail agencies.

Attention is invited to the condition upon which the Sioux relinquished their right to hunt in Nebraska, namely, that in addition to the $25,000 heretofore appropriated for that purpose, the Department agreed to recommend the further appropriation of a like amount. While presenting this recommendation, however, I deem it my duty to state that under the terms of the treaty of 1868 that right probably no longer existed at the time said promise was made, it having expired by the terms of the treaty itself. That treaty reserved to the Sioux "the right to hunt on any lands north of the North Platte, and on the Republican Fork of the Smoky Hill River, so long as the buffalo may range thereon in such numbers as to justify the chase." It is the concurrent testimony of Army officers and white settlers familiar with the section of country referred to as a hunting-ground, that the buffalo no longer range thereon "in such numbers as to justify the chase."

The failure of the negotiations for the relinquishment of the Black Hills necessitates the adoption of some measures to relieve the Department of the great embarrassment resulting from the evident determination of a large number of citizens to enter upon that portion of the Sioux reservation to obtain the precious metals which the official report of the geologist sent out by the Department shows to exist therein. The very measures now taken by the Government to prevent the influx of miners into the Black Hills, by means of the display of military force in that neighborhood, operate as the surest safeguard of the miners against the attacks of Indians. The Army expels the miners, and,

while doing so, protects them from Indians. The miners return as soon as the military surveillance is withdrawn, and the same steps are taken again and again. Some of the miners have brought suits against the military officers for false imprisonment, and much embarrassment to both the Army and the Interior Department is the result.

The preliminary report of Professor Jenney, which accompanies the report of the Indian Commissioner, in regard to the geological and agricultural wealth of the Black Hills, indicates clearly the great temptation held out to emigrants and miners to occupy that country, and will greatly enhance the difficulties which have already surrounded the question of protecting the Sioux in their treaty-rights to that territory. The opening of the next summer season will undoubtedly witness a great increase of emigration thither, and the question urges itself upon the attention of the Department and of Congress for early solution.

It is true that the Indians occupy that reservation under the provisions of a treaty with the United States. It is also true, as a general proposition, that treaties should be maintained inviolate, and the Indians, protected in their rights thereunder. But for two years the Government has been appropriating about one and one-quarter millions of dollars for the subsistence of the Sioux of various tribes, which amount is a gratuity that the Government is under no legal obligation to give them, and for which it receives no compensating advantage. The amount thus appropriated is 5 per cent. per annum of $25,000,000, which the Government is giving without an equivalent. This amount must be annually given them for some years to come, or they will starve. It is submitted, therefore, under these circumstances, for the consideration of Congress, whether it would not be justifiable and proper to make future appropriations for supplies to this people contingent on their relinquishment of the gold-fields in the Black Hills, and the right of way thereto.

The suggestions of the Commissioner in regard to Indian civilization, the modification of the homestead laws for the benefit of the Indians, and turning over the Indians in the States of New York, Michigan, Wisconsin, and a portion of those in Minnesota to the control of the States in which they live, are deserving of the careful attention of Congress, as being steps in advance upon the question of Indian management. His remarks upon the necessity of law for the punishment and protection of the Indians are also of importance, as tending in the same direction.

The condition of the Indian Territory south of Kansas has not changed during the year, and will not materially change for the better until some steps are taken to give its inhabitants a more efficient government. The necessity for the establishment of courts of justice therein for the trial of all offenses against persons or property becomes more pressing year by year, and the whole question of legislating for that territory is respectfully but urgently pressed upon the attention of Congress. I

have taken the necessary steps to procure a full and unbiased report of the condition of things in that territory, and will ask the privilege of submitting to you a special report on the subject at an early day after the meeting of Congress, at which time some further recommendation in that behalf may be found to be necessary and proper.

The peculiar condition in which the so-called Mission Indians of Southern California are situated is clearly stated in the Commissioner's report, and he makes suggestions in regard to their treatment. The unsettled condition of this people is a source of embarrassment to the white settlements in that portion of California, and will continue to be an element of irritation and danger until some measures are adopted for their relief.

It would be beneficial to the Indian service, in my opinion, and would tend to promote its efficiency, if the laws preventing the detail of Army officers for civil service were so far modified as to allow their employment in the Indian service at the discretion of the President, in case of emergency. Such a change would place at the disposition of the Executive a corps of disciplined, intelligent officers, whose familiarity with the entire Indian country and the needs of the service would render them invaluable in an emergency such as has arisen during the present year, and such as is liable to arise at any time in the treatment of large bodies of wild Indians.

The Secretary of the Interior now holds in his possession, in trust for various Indian tribes, bonds of the United States and of several of the States, the par value of which is about $5,000,000. Authority has been conferred upon the Secretary of the Interior, from time to time, by Indian treaties and acts of Congress, to invest the proceeds of the sales of lands ceded to the United States by Indian tribes. The authority so given to invest, as trustee, seems to have been construed as implying also the authority to hold such securities in possession by the Secretary of the Interior in trust, and he now holds such stocks and bonds to the amount of $5,107,516. Whether the right to hold those securities is conferred by the laws and treaties referred to or not, I recommend that the necessary legislation be made authorizing their transfer to the Treasurer of the United States, by whom the interest thereon, as it accrues, shall be placed to the credit of the proper tribe, to be drawn on requisition of the Secretary of the Interior, as in the case of appropriations. Such a disposition of these securities will relieve the Secretary of the Interior of a disagreeable responsibility and duty not in any way homogeneous to the general duties of the office, and place the bonds where all such valuables should be kept.

The co-operation of the religious bodies having in charge the duty of nominating Indian agents has been harmonious and satisfactory, and they have evidently been careful in their selection of proper men for those positions.

The Board of Indian Commissioners has been efficient in the perform-

ance of its duties, and has rendered valuable assistance to the Department in the supervision of the purchase and inspection of annuities and supplies, in the examination of contracts, and the auditing of vouchers. It is to be regretted that their annual report is not made in time for me to profit by their suggestions and observations in making this report; and it is hoped that hereafter it will be completed on or before the 1st of November in each year.

The Commissioner alludes to the fact that, with the exception of the hostilities with the Cheyennes and Comanches, which were pending when the reports for the last year were closed, and which ceased soon afterward, there have been no serious collisions between the Indians and the whites in our entire domain. This fact is one of great encouragement, showing, conclusively, that the Indians are anxious to maintain peaceful relations; and that even under great provocations, which they have had in several instances during the year, they have come to recognize so thoroughly the power of the whites and the good faith of the Government toward them, as to trust to that Government and not to their own strength to redress their wrongs.

There are still some roving bands of hostile Sioux in the Big Horn and Powder River country of Dakota and Montana which should be subjugated and compelled to cease their raids and depredations upon other tribes and upon the whites. When this is done there will be but little trouble, with a fair degree of tact, intelligence, and force, to control our entire Indian population.

On the whole, I cannot but regard the work of the year in the Indian service as showing decided progress in the direction of establishing peaceful relations, encouraging to habits of industry, leading toward civilization and education, and generally tending toward the accomplishment of what you sought by your policy to secure, namely, the protection, support, and improvement of the aborigines of the country, without impeding the westward progress of white settlements. The experiences of the year have developed necessities for still further legislation, which are mentioned in the Commissioner's report, and to which careful attention is invited.

The thanks of this Department are due to the War Department and the officers of the Army for the prompt and efficient aid they have rendered during the year in the management of Indian affairs throughout the country, and for their hearty co-operation and advice whenever called upon to render assistance in carrying out the details of the Indian policy.

The commission which was appointed during the year to investigate the management of affairs at the Red Cloud and Spotted Tail agencies made some valuable suggestions in their report, in which I cannot refrain from concurring. In regard to the necessity of laws for the protection and punishment of Indians, they say:

The criminal-laws of the United States should be extended over the reservations, and

when an Indian outside of a reservation shall commit an offense he should be made subject to the police and criminal laws of the State in which such offense is committed. Some form of territorial policy should be established for their government when the number and compactness of their population would render such an organization proper. The individuality of the Indian as a member of the community should be recognized, and the absurd fiction of tribal sovereignty in which that individuality is now merged, should be abolished. Courts should be organized for the administration of justice over such territory. The individual ownership of property should be encouraged under temporary restrictions on alienation, and the privileges of citizenship made accessible upon such terms as good policy may prescribe. The evils that result from the absence of provisions like this are apparent. Community of property is fatal to industry, enterprise, and civilization, and exemption from legal responsibility for crime has stimulated depredations, robbery, murders, and assassination.

In regard to the inspection and delivery of supplies, they remark:

We have already recommended that officers be detailed for the inspection of beef and beef-cattle at the Indian agencies; and, for reasons similar to those already mentioned in that connection, we recommend that all inspections of Indian goods (except annuity-goods, the inspection of which is provided for by treaty) and supplies at the points of purchase and shipment, at terminal points of railroad transportation, and at the agencies, before the articles pass into the possession of the agents, be under the exclusive charge of the Commissary-General of the Army. We believe that such a system would not merely serve as a salutary check on contractors, freighters, and agents, but would be of great use in satisfying the public mind that the service was fully and faithfully performed. It would seem desirable that a copy of the reports of all such inspections should be transmitted, through the proper channels, to the Indian Office.

They also recommend—

That in accordance with the provisions of the treaty of 1868, Army officers be detailed to inspect all issues of annuity goods, and that all inspections of Indian supplies and beef be made under the direction of the Commissary-General of the Army.

That a carefully-devised system of accounts, uniform for all agencies, be established, with the mode of issuing and accounting for all articles definitely prescribed.

That the agencies, differing greatly as they do in the amount of intelligence and capacity required to conduct them, be so graded as to establish for the most important ones salaries sufficient to secure the services of thoroughly-trained and competent men.

That all future legislation for the Indians, and all dealings with them, be based upon the policy of bringing them as rapidly as possible under the same law which governs all other inhabitants of the United States.

The minor recommendations of the commission, such as require no legislation, and need only departmental action, will be carried into execution as rapidly as possible, so far as they meet my approval.

PENSIONS.

The annual report of the Commissioner of Pensions shows that the number of pensioners on the roll continues to decrease, as was anticipated in the last annual report of this Department. The greatest number was reached during the year ending June 30, 1873, since which time the roll has undergone a steady decrease. There has not, however, been a corresponding reduction in the annual charge to the Government on this account, for, while the roll has decreased 1,420 in number during the last fiscal year, the total annual rate is $44,733.13 in excess of that of the preceding year. This result is owing, principally, to the

steady growth of the roll of invalid pensioners and the increase in the average annual rate of such pensions, which has advanced, under the operation of the more recent liberal enactments of Congress, from $90.26 in 1872 to $103.91 in 1875, to each pensioner.

On the 30th of June, 1874, the names of 236,241 pensioners were borne on the rolls, at an annual aggregate rate of $26,244,786.46. During the year next ensuing, 11,557 names were added to the roll, and 12,977 dropped therefrom for various causes, leaving the names of 234,821 persons on the roll June 30, 1875, whose pensions annually aggregate the sum of $26,289,519.59. Of the latter number, 210,363 were Army pensioners, 105,478 of whom were invalids and 104,885 widows and dependent relatives; 3,420 were Navy pensioners, of whom 1,636 were invalids, and 1,784 widows, &c.; and 21,038 were pensioners of the war of 1812, 15,875 of whom were survivors, and 5,163 widows; a total of 234,821 pensioners.

There were examined and allowed, during the last fiscal year, 26,018 Army-pension claims, of which 5,876 were for invalid pension, 13,483 for increased pension to invalids, 4,732 for pension to widows, dependent relatives, &c., and 1,927 for increased pension to widows, &c.; 443 Navy-pension claims, of which 170 were for invalid pension, 127 for increased pension to invalids, 122 for pension to widows, dependent relatives, &c., and 24 for increased pension to widows, &c.; and 657 claims for pension of survivors and widows of soldiers in the war of 1812, of which 241 were for pension to survivors, and 416 to widows; making a total of 27,118 claims adjudicated during said year, at an aggregate annual rate of $2,119,169.07.

During said year the payments from the appropriations for pensions were as follows: To Army invalids, $11,748,433.79; to Army widows and dependent relatives, $15,525,734.30; to Navy invalids, $185,675.82; to Navy widows, &c., $334,672.65; to survivors of the war of 1812, $1,355,599.86, and to widows of soldiers in that war, $533,000.21; in all, $29,683,116.63, which amount includes the expenses of disbursement.

It thus appears that, notwithstanding the total amount due on the pension-roll has been increased during the year by $44,733.13, the total disbursements were $910,632.93 less than during the preceding year; but this apparent decrease in the annual expenditure results from the reduction in the amount of arrearages due on pensions allowed during the year, and on pensions, previously granted, the average rate of which has been increased by recent legislation.

On the 30th of June last there were on file 66,107 unadjudicated pension-claims, of which 32,228 were for invalid pensions, 33,138 those of widows, dependent relatives, &c., and 741 of survivors and widows of soldiers of the war of 1812; and 7,778 pending claims for increased pension, 6,772 of which were those of invalids, and 1,006 of widows and dependent relatives; in all, 73,885 claims undisposed of at that date.

There were borne on the rolls, at the close of the year, the names of

379 widows of soldiers in the revolutionary war, and of 1,009 widows and children of soldiers who served in wars subsequent to the Revolution, excepting that of 1812, and prior to the late rebellion.

During said year 675 applications for bounty-land were filed, and 407 warrants issued for 63,560 acres of land, being 27,920 in excess of the number of acres issued for the preceding year. I respectfully renew the recommendation contained in the last annual report of this Department, in regard to the propriety of suitable legislation by Congress for limiting the period during which the several laws relating to bounty-land shall remain in force. Attention is invited to the recommendation of the Commissioner for the repeal of section 2444 of the Revised Statutes. Under that section bounty-land warrants are made personal chattels, and assignable by legal representatives. Before the enactment of that provision of law, it was the custom of the Department, in accordance with the opinion of several Attorneys-General of the United States, to treat such warrants as realty, because they were inchoate title to real estate. The change thus wrought in their status has opened up a wide field for fraud, and improperly-appointed administrators have sold and assigned such warrants, without the knowledge or consent of the heirs, and without the latter knowing even of the issue of the warrants by the Pension-Office. In this manner frauds have been committed and widows deprived of their property, under cover of the section referred to. Its repeal will render such transactions impossible in the future. Section 2445 of said statutes should also be repealed, because administrators, as such, should have no control over real property; the widows and heirs of deceased claimants being, through their attorneys, fully competent to prosecute their claims, and to protect their own interests before the Pension-Office.

The Commissioner estimates that by the 4th of December next 12,500 applications for increased pension, based upon the biennial examinations made on the 4th of September last, will have been filed. A total estimated cost of $25,000 for re-examinations by surgeons is involved in the adjudication of these claims, as, under existing laws, an increase of pension must, unless the disability be permanent and specific, commence from the date of the examining-surgeon's certificate made under the pending claim. The Commissioner is of opinion that re-examinations in these claims are unnecessary, for the reason that they could be properly adjudicated upon the reports of the recent biennial examinations, and that the sum of $25,000 could be thus saved to the Government. I therefore recommend such an amendment to the law as will authorize the acceptance of such reports within six months after their date, in the adjudication of claims for increased pension, so that the increase, if allowed, will commence from the date of the biennial examination in each case.

The Commissioner also suggests the propriety of further legislation to more fully define what shall be accepted as evidence of the remarriage

of pensioned widows, mothers, and sisters. Special investigation by agents of the Office discloses the fact that many pensioners of this class are living in a state of cohabitation with men to whom, no doubt, they would be legally married were it not that by so doing they would forfeit, under existing laws, their right to pension. Under a liberal interpretation of the pension-laws, proof of such cohabitation, or of general recognition of the parties as husband and wife, is accepted, in the adjudication of claims of this description, as sufficient evidence of marriage, where no better can be furnished, and it seems only proper that such proof should be accepted as sufficient to establish the same relation in the case of a pensioner. A due regard for the interests of the Government and for the conservation of public morals appears to require such a modification of the law as will authorize a forfeiture of the pension of a widow, dependent mother, or sister, upon the discovery of proof of such cohabitation, and I therefore recommend suitable legislation to that end.

In the adjudication of claims of widows of colored soldiers, the provisions of section 4705 of the Revised Statutes are found to discriminate unjustly between white and colored claimants who resided at the time of their alleged marriage in those States wherein, prior to the late rebellion, marriages of colored people were recognized by law. The requirements of the general pension-law, in regard to evidence of marriage of white claimants of this class, are much more rigid than those of the section referred to, and, believing that white and colored claimants residing in the States referred to should be placed upon the same footing before the law, with regard to proof of marriage, the Commissioner recommends such an amendment to said section as will confine its provisions to those widows of colored soldiers who, at the time of their alleged marriage, resided in the late slave States.

The efforts of the medical division to secure just and equitable rates of pension have been unrelaxed. With each succeeding year it becomes more and more apparent that the amount of annual expenditures for pensions depends materially upon correct ratings of the disabilities of invalid pensioners. In the adjudication of claims for invalid pension, and for increase of the same, the medical questions involved are of the first importance, and, as their determination depends materially upon the reports of examining-surgeons, as revised by the medical division, it is obvious that men of the highest professional standing and of undoubted integrity should always be selected to fill such positions. Numerous changes have been made during the year in the roster of examining-surgeons, numbering 1,491 on the 30th of June last; but the Commissioner states that, notwithstanding his efforts to secure the best medical talent, it is impossible, under the present system, to secure such medical examinations and reports as are necessary to an intelligent adjudication of claims of invalids or those for increased pension. The following facts, hereinbefore referred to, have an important bearing in

this connection. During the last fiscal year the invalid-pension roll was augmented by 3,106 names, whereas all the other classes of pensions were reduced 4,526 in number. Notwithstanding the fact that the losses to the entire roll during said year exceeded the additions thereto by 1,420 names, the annual expenditure, as before stated, was increased by the sum of $44,733.15, which is mainly due to the appreciation in the average annual amount paid to each invalid pensioner. The increase in such average during the three years immediately preceding June 30, 1875, amounted to $13.65 per annum to each invalid pensioner, involving an accretion, during those three years, of nearly one and a half million dollars to the total annual rate of the roll, independently of any additions to its number. It is apparent, therefore, that if the roll of invalid pensioners continues to increase in equal proportion to the number added thereto during the last fiscal year, with a proportional advance in the average yearly pension, there will be no immediate reduction in the annual expenditure for pensions, for, as I have before stated, the gain to said roll during the last fiscal year exceeded the losses to the other rolls. I regard a partial departure from the existing system of making medical examinations of pensioners, or claimants for pension, as fully warranted by the facts and considerations herein presented, and as necessary to the interests of the public service. I therefore recommend such new legislation as will authorize the employment of a number of surgeons, not exceeding sixty, at a liberal annual salary, who shall be selected from the most eminent medical men in the United States, and assigned to certain defined districts, into which the country shall be divided, subject to such changes as the interests of the service may demand. In making such recommendation, it is not proposed that the present system of appointment and payment of examining-surgeons should be entirely superseded by the appointment of district-surgeons, but that, so far as possible, all examinations should be made by the latter. The number of examining-surgeons could thus be largely reduced, their services being only required in those cases where, for want of time, the district-surgeons may be unable to make examinations without subjecting claimants for pension to long delay.

During the last fiscal year 1,530 cases were investigated by special agents of the Office. Of these 309, all of which were admitted claims, were found to be fraudulent, and 243 pending claims were recommended for rejection. It is estimated that the sum of $144,552.84 was saved to the Government during the year by the exertions of the special-service division. These investigations were made by clerks of the Office, detailed for the purpose under existing laws; but, the entire clerical force of the Pension Office being inadequate to a prompt disposition of its current business, it is obvious that no considerable detail therefrom can be made for special service. The number of claims requiring such investigation is accordingly greater than the limited force of the division

can dispose of, and thus action in many cases is suspended for months, involving much complaint, more or less just, on the part of claimants. The Commissioner, therefore, recommends the entire reorganization of the division, upon a basis similar to the special-service of the Post-Office and Treasury Departments, and that authority be given by law for the appointment of a regular corps of special agents, at least 30 in number, who shall receive a fixed annual salary, and, when traveling on such duty, shall be entitled to a *per-diem* allowance for subsistence and their actual traveling-expenses.

Almost the entire clerical force of the Pension Office is employed in the Seaton House building, and all the records and files relating to claims for pension and bounty-land are stored therein. The unsuitableness of this building for the purpose, and its insecurity as a place of deposit for valuable records and files, have been commented upon at length in the annual reports of my immediate predecessor. The building was rented four years ago for the use of the Pension Office, under a lease which expired on the 10th of August last, and its occupation is continued under a condition of the lease which allows the Government to occupy it from year to year, as may be required, at the same rent, viz, $10,000 per annum. Unavailing efforts were made to find a more suitable building before the expiration of said lease, and it has been found necessary to rent two additional buildings adjoining the Seaton House at an annual cost of $3,500. The whole amount, therefore, which is now paid for rent of buildings used by the Office is $13,500.

The Commissioner invites attention to the necessity for an addition to the present force of his Office, and to the propriety of a reorganization of such force, whereby higher rates than are now paid would be provided for those clerks who are employed in the more responsible positions therein. At the close of the last fiscal year, the number of original pension-claims on file, unadjudicated, was 66,107; an increase of 4,447 pending claims during the year. The whole number of original claims filed during said year was 18,704, and of claims for increased pension 18,563, a total of 37,267 claims; while during that period 27,118 claims of all classes were allowed, and 9,078 rejected; making a total number of 36,196 claims disposed of, or 1,071 less than the whole number received during the year.

The foregoing figures show the necessity for additional clerical force in the Office, if it is desired by Congress that said force should be sufficient to not only dispose of the current business of the Office, but also the accumulations of past years, represented by the 66,107 pending claims above referred to, in addition to which there were 7,778 pending claims for increased pension. Many of these claims are doubtless meritorious, and it is only just to those who were disabled in the cause of our country during the late rebellion, and to their widows and depend-

ent relatives, that such provision should be made as will insure prompt action on their claims upon the bounty of the Government.

It is estimated that the sum of $29,535,000 will be required for the pension-service during the next fiscal year; which amount is less by $965,000 than the estimate submitted for the current fiscal year.

EDUCATION.

The report of the Commissioner of Education for the last fiscal year contains the usual abstracts of reports of State and city superintendents, and of other official publications relating to educational matters, together with increased tables of statistics compiled from replies to inquiries, made by the Commissioner, of the various State and city educational officers, and of institutions devoted to the interests of public instruction.

The benefits of a common nomenclature adopted in reporting statistics relating to education are becoming apparent. The information now given to the public by means of the official publications of State and local school-systems and of educational institutions is thus more easily generalized and better understood. Valuable lessons are derived, in the opinion of the Commissioner, from the generalization of such a multitude of facts obtained from so large a number of State, territorial, and city systems and from so many institutions, and he regards the enunciation of such lessons as of more general importance than the exercise of any control in educational matters; for in this way existing excellencies are shown and emulation excited, while past errors are noted and methods of improvement suggested.

The demand upon the Office for information upon special topics has been met, in part, by the publication of eight pamphlets, containing, in all, 704 octavo pages. During the year more attention has been given to the introduction of drawing in public schools than formerly, and there has been a marked tendency to abandon faulty and obsolete methods of instruction, adopting those more in harmony with natural development, and better adapted to fit pupils for the more practical duties of life. A special report on drawing, as taught in these schools, and on art-education in the United States, is in preparation and nearly ready for publication.

The statistical work of the Office has largely increased during the year. In addition to general inquiries with reference to State and territorial school-systems, requests have been made for special information of the various universities, colleges, schools of science, theology, law and medicine, schools for the higher instruction of women, college preparatory schools, academies, museums of art and natural history, schools for the deaf, dumb, and blind; reformatories, and asylums in the country. A special report is now in course of preparation in regard to public libraries in the United States, including those of schools, colleges, societies, &c., which will furnish interesting statis-

tics, and show their historical development, classification, management, and circulation.

The Commissioner alludes to the embarrassment encountered by the promoters of education in those States wherein slavery has been more recently abolished, and recommends the adoption of appropriate relief measures by the General Government. In view of the rapidly increasing work of the Office, and of the general importance of such work, the Commissioner asks that such an increase to the clerical force of his Bureau be made as will enable it to accomplish more satisfactorily the purposes for which it was established and is conducted. Its labors have also been materially increased by its connection with the approaching Centennial Exhibition, involving the necessary correspondence with educators for the purpose of harmonizing all diverse projects and plans for a proper showing of educational methods, appliances, and results, and the preparation of such limited, but correct and authoritative, reports on the various school systems, classes of institutions, and phases of education, as will be of permanent value.

CENSUS.

The work of the Census Office during the past fiscal year has consisted principally of correspondence relating to the publication of the census of 1870, the projected State censuses of 1875, the International Statistical Congress to be held in Hungary in 1876, conducted by the Superintendent at his home; and the labor attending the verification of statistical statements by means of the census-rolls, the consultation of manuscript returns for specific or technical information not embodied in the quarto volumes, and the adjustment of unpaid accounts of marshals and assistant marshals at the census of 1860, performed by the custodian of the census-records of this Department.

During the year the statistical atlas of the United States, compiled under the act of March 3, 1873, has been completed and issued from the press, and all accounts relating thereto have been closed. The appropriation for the purpose was found sufficient to finish the work without any deficiency, notwithstanding that the plan of publication was greatly enlarged after the estimates of expenditure were framed. The Superintendent states that the atlas has received unexpected favor at home and abroad, and that at the International Geographical Congress held in Paris during the past summer a gold medal of the first class was awarded to it.

The Superintendent is of opinion that some disappointment will be felt by those interested in the progress of statistics in the United States at the comparatively small results to be derived from the anticipated State censuses of 1875. He reports that censuses, more or less complete and formal, have been taken during the present year under State laws and by State agencies only in the following-named States: Florida, Iowa, Kansas, Louisiana, Massachusetts, Minnesota, Nebraska, Nevada, New

Jersey, New York, Oregon, Rhode Island, and Wisconsin, and that a census of the population of Michigan was taken in 1874, full results of which have been published. The Superintendent states that enough is already known of the results of the censuses of 1875 to indicate, quite clearly, that the progress of our population has received a temporary check.

RAILWAYS.

The facts and figures herein set forth are compiled from the annual reports of the companies.

Stock of the Union Pacific Railroad Company to the amount of $36,783,000 has been subscribed, of which $36,762,300 has been paid. The receipts for the year ending 30th June, 1875, from the transportation of passengers, were $4,408,966.15; of freight, $6,064,637.59; and from miscellaneous sources, $1,048,417.80; total, $11,522,021.54. These figures include "the amounts earned from, but withheld by, the United States for transportation of its passengers, freight, and mails." The expense of operating the road for the year was $5,373,655.87, leaving net earnings $6,148,365.67. The entire cost of the road and fixtures to 30th June, 1875, was $112,596,252. The construction account of the Omaha bridge shows its cost to have been $2,866,463.72. The total bonded indebtedness of the company is shown to be $79,457,912, of which $27,236,512 is due to the United States.

The amount of stock of the Central Pacific Railroad Company subscribed is $62,608,800, of which $54,275,500 has been paid. The receipts for the year ending 30th June, 1875, from transportation of passengers, were $5,330,326.18; and of freight, $8,602,534.96; total, $13,932,861.14. The operating expenses of the road for the year were $5,901,363.01, leaving net earnings to the amount of $8,031,498.13. At the close of said year, the indebtedness of the company amounted to $86,168,688.11, of which $27,855,680 is due to the United States. This company embraces, by consolidation, (besides the original Central Pacific Company,) the Western Pacific, the California and Oregon, the San Francisco, Oakland and Alameda, and the San Joaquin Valley Companies.

Stock of the Central Branch Union Pacific Railroad Company to the amount of $1,000,000 was subscribed, of which $980,600 has been paid. The receipts for transportation of passengers for the year ending the 30th of June, 1875, were $36,495.80; and for freight, $77,024.08; total, $113,519.88. The actual amount expended for said year—"running expenses and repairs"—was $123,188.43. The cost of the road and fixtures has been $3,763,700. The total amount of the indebtedness, in addition to the Government loans and first mortgage of $1,600,000 and interest unpaid, is $303,902.63, which indebtedness is made up of the following kinds: money borrowed to take up coupons and pay internal-revenue claims and debts and liabilities of the company.

The amount of stock of the Kansas Pacific Railway Company sub-

scribed is $9,992,500, and the amount paid in is $9,689,950. Total amount of stock allowed by law, $10,000,000. The receipts for the transportation of passengers for the year ending 30th June, 1875, were $1,272,175.91; for freight, $1,994,411.59; miscellaneous earnings, $42,809.46; total, $3,309,396.96. Expense of operating the road for the year, $2,096,674.33, leaving net earnings $1,212,722.63. The cost of construction and equipment of six hundred and seventy-two miles (main and branch line) has been $34,359,540.66. The total funded debt of the company is $27,242,600, of which $6,303,000 is due the United States; other liabilities and indebtedness, $3,723,375.41; total debt, $30,965,975.41.

Stock of the Sioux City and Pacific Railroad Company to the amount of $4,478,500 has been subscribed, of which $1,791,400 has been paid in. The receipts for the year ending 30th June, 1875, from the transportation of passengers, were $75,850.72; of freight, $181,604.29; from express, $3,518.85; and from miscellaneous sources, $7,103.73; total, $268,077.59. The expenses of the road and fixtures during that period were $217,917.01, leaving net earnings $50,160.58. Interest paid on first-mortgage bonds during the year, $97,680. The bonded indebtedness of the company is $3,256,320, of which $1,628,320 is due to the United States. The floating debt is $60,571.67.

The stock-subscription of the Southern Pacific Railroad Company of California is $23,770,300, of which $22,412,200 has been paid in. The amount received for transportation of passengers for the year ending 30th June, 1875, was $761,637.61; of freight, $998,869.01; total, $1,760,506.62. The expenses of the road and its fixtures for the year were $773,485.52, leaving net earnings, $987,021.09. The indebtedness of the company is $14,346,000. On the 23d day of August last, you accepted a section of this company's road, twenty miles, making 130.26 miles of the main line. By the twenty-third section of the act of 3d March, 1871, incorporating the Texas Pacific Railroad Company, the Southern Pacific Railroad Company of California was authorized to construct a line of railroad from a point at or near Tehachapa Pass, by way of Los Angeles, to the Texas Pacific Railroad, at or near the Colorado River. One hundred miles of this line have been completed and accepted, fifty miles of which were accepted by you on the 11th instant.

Northern Pacific Railroad stock to the amount of $100,000,000 has been subscribed, and certificates for 202,326 shares of $100 each have been issued. No new surveys and no change of line of road have been made. The amount received from passengers during the last fiscal year on the Pacific, Dakota and Minnesota divisions was $178,391.98; the amount received from freight-transportation on those divisions for that period was $371,903.33; earnings, $605,041.63. The operating-expenses for the year were $501,489.36. Net earnings, (exclusive of mail-earnings on the Dakota division,) $103,552.27. The indebtedness of the Company is as follows: First-mortgage bonds, $30,207,500; land-warrant bonds

and scrip issued for interest, $753,000.96; floating debt, mainly notes of the company, $683,000; total, $31,643,500.96.

No report of the Atlantic and Pacific Railroad Company has been received.

On the 22d January last a section of 18.84 miles of the Cairo and Fulton Railroad, extending from Fulton to Texarkana, in Arkansas, was accepted, as well as 89.75 miles, extending from a point on the Mississippi River, opposite the mouth of the Ohio River, to the boundary-line between Missouri and Arkansas. This road is now completed.

On the 16th June last another section (twenty miles) of the Little Rock and Fort Smith Railroad was accepted, making one hundred and twenty miles completed and accepted.

Texas and Pacific Railway stock to the amount of $50,000,000 is authorized by law, of which $1,600,000 has been issued. Its indebtedness is as follows: Capital stock issued, $1,600,000; 6 per cent. gold construction bonds issued, $10,093,000; 7 per cent. currency land-grant bonds issued, $9,252,000. Debt of the Southern Pacific Railroad Company to the State of Texas, assumed by the Texas and Pacific Railway Company, $200,885.90; floating debt, $333,200.36; entire indebtedness, $21,479,086.26. The receipts of the company for the year ending 30th June, 1875, were from passengers, $323,681.51; freight, $741,791.87; express service, $11,407.92; mail, $29,749.23; telegraph, $7,073.70; rentals, $71,134.04; miscellaneous, $2,243.10; total, $1,360,962.71. The expenses for the same period were, for conducting transportation, $239,719.96; motive-power, $204,975.23; maintenance of way, $224,571.53; maintenance of cars, $79,253.04; general expense, $44,369.61; total, $792,889.37; leaving net earnings, $568,073.34. There are three hundred and twenty-six miles of this road in operation, six miles thereof having been completed since last report; one hundred miles are graded, bridged and tied, ready for the iron. On the 9th August last, you accepted those portions of this road extending from Marshall to the boundary-line dividing Texas and Louisiana, from Marshall to Texarkana, Ark., and from Sherman to Brookston, Tex.; the act of 22d June, 1874, (18 Stat., 197,) having declared said portions to "be deemed and taken to be a part of the said Texas and Pacific Railway, and shall hereafter be subject to all the provisions and limitations of the act of Congress incorporating said company, and of the supplements thereto." The company's assets are as follows: Three hundred and twenty-six miles of constructed and equipped road; one hundred miles of partly constructed and equipped road; three hundred and fifty miles of telegraph line, $21,319,228.24; bills and accounts receivable, $64,284.72; cash on hand, $12,411.66; material on hand, $83,161.64; total, $21,479,086.26.

Denver Pacific Railroad stock to the amount of $4,000,000 has been authorized by law, subscribed and paid in. Moneys received for transportation of passengers for the year ending 30th June, 1875, $193,481.26; for freight, $134,329.90; miscellaneous earnings, $5,084.50; total,

$332,895.66. Expenses for the above year $122,675; leaving net earnings $210,220.66. Cost and equipment of road, $6,493,800. The indebtedness of the company to that date was $2,512,830.05.

CAPITOL.

The Architect reports that the Library of Congress and the Law Library have been supplied with a large amount of shelving; additional rooms in the central building have been fitted up for use as committee-rooms; the steam-boilers of the Senate wing have been thoroughly repaired; and that the whole building has been kept in good repair. The fire-engine house and the stables for the use of the mail-wagons of the Senate have been completed. Pursuant to the provisions of an act of Congress approved June 23, 1874, the Architect prepared plans for a building to be erected for the Women's Christian Association of the District of Columbia. A contract having been made for its construction, involving a sum within the limit prescribed in the act, the Architect reports that the building is now in course of erection, and will be ready for occupancy during the coming winter.

IMPROVEMENT OF CAPITOL GROUNDS.

The Architect refers to the report of Fred. Law Olmsted for details of the improvements made during the year in the Capitol grounds. In order that the surroundings of, and approaches to, the building may be finished in a manner commensurate with its grand proportions, the Architect recommends that due provision be made by Congress for changing the present rustic terraces, by widening them and facing them with a wall, and for the construction of grand stairs approaching the center of its western front, in accordance with Mr. Olmsted's plans. The grading required to carry out the plan for the eastern portion of the grounds has been completed, and the whole of the eastern and most of the western portion thereof have been provided with a complete system of road and sub-soil drainage, gas-lighting, and water-supply. The roads and walks of the eastern grounds, together with the carriage court, have been formed and graveled, and the approach-drives to the western grounds formed and partially macadamized. The street-railroads north and south of the western grounds have been taken up and re-laid outside the limits of the Capitol grounds, and the stables and workshops, formerly situated at the northern, western, and southern angles of the western grounds, have been removed.

BENEVOLENT INSTITUTIONS.

INSANE ASYLUM.

During the year ending June 30, 1875, 912 patients were under treatment in the Government Hospital for the Insane; an increase of 63 over

the number treated the preceding year. Of the former number, 508 were from the Army and Navy, and 705 were males; 31 were pay-patients; 58 died; and 136 were discharged—78 as recovered, 48 as improved, and 10 as unimproved; leaving under treatment at the end of said year 718 patients, of whom 428 were from the Army and Navy, and 552 were males. During the year 230 persons, of whom 105 were from the Army and Navy, and 179 were males, were admitted to the hospital. The general health of the institution has been good. Three thousand eight hundred and nineteen persons have been treated in the hospital since it was opened.

During the last fiscal year the expenditures for support of the hospital, and for the necessary repairs and improvements authorized by Congress at its last session, amounted to $160,325.59. The amount received during the same period for board of private patients was $17,167.74, and that from the sale of produce $2,408.37. The products of the farm and garden during the year were estimated to be worth $18,292.70, and the live stock, farm and garden implements, &c., belonging to the hospital are valued at $20,189.34.

The board of visitors submit the following estimates: For support of the hospital during the year ending June 30, 1877, $155,895; enlarging and improving the gas-works, slaughter-house, laundry, and drainage of the building, and for the erection, furnishing, and fitting-up of an enlarged and improved bake-house, $15,000; general repairs and improvements, $10,000; and for the erection of a separate building for female patients, $200,000; in all $380,895.

The board of visitors state that but 563 patients can be properly accommodated in the present hospital building, whereas on the 30th of September last 727 persons were under treatment therein, being 164 patients in excess of its proper capacity. A careful examination of the reports of the institution during the past ten years shows an average increase in the number of patients treated during that period of over 10 per cent. per annum. It is stated by the board that the ordinary and very serious evils of overcrowding an institution for the insane can no longer be wholly avoided, and that the utmost vigilance is necessary to prevent distressing accidents and endemic disease. The recommendation of the board, therefore, seems eminently proper that some steps should be taken in the direction of a permanent enlargement of the hospital. After due consideration of the question as to the manner in which the institution should be enlarged so as to best subserve the welfare of its inmates, the board have reached the unanimous conclusion that the best plan for attaining the object desired will be to erect a separate building for female patients. Of the number of patients under treatment on the 30th of September last, 561 were males, or only two less than the number that can be properly accommodated therein, as above stated. It is apparent, therefore, should the proposition to erect a separate building for female patients be favorably acted upon

by Congress, that the present building would be fully occupied by male patients.

Many considerations are presented by the board showing the advantages that will accrue from separating the sexes, and, as it is obvious that the rapidly increasing number of patients in the hospital renders its enlargement necessary at an early day, I regard the recommendations of the board as worthy of favorable consideration by Congress. The estimated cost of the proposed building for female patients, complete and ready for occupation, is $395,000; and the sum of $200,000 is now asked for, in order that its erection may be commenced at once.

It is proposed by the board to erect the department for women on the farm of 175 acres lying on the east side of the public road which runs through the hospital-grounds, relinquishing the present buildings, surrounded by 185 acres of land, and having a water-front for fishing, boating, and bathing, to the exclusive use of the men.

DEAF AND DUMB ASYLUM.

During the year ending June 30, 1875, 102 pupils, 13 of whom were females, received tuition in the Columbia Institution for the Deaf and Dumb. Of the whole number, 53, representing twenty-one States and the District of Columbia, were in the collegiate, and 49 in the primary department. The receipts of the institution during the year were $53,716.42, and the disbursements, $49,724.61, leaving an unexpended balance of $3,991.81, of which, however, about $1,900 will be expended for coal, contracted for but not delivered, within the year.

The Baker library, comprising between five and six hundred books, a large majority of which are devoted exclusively to the subject of deaf-mute instruction, has been secured for the use of the institution. During the year the appropriation made by Congress at its last session for the erection and fitting up of buildings has been expended in completing two dwelling-houses and in partially erecting the walls of the college building.

The estimates submitted for the next fiscal year are as follows: For the support of the institution, $48,000; for continuing the erection and fitting up of buildings, $50,000; for the inclosure, improvement, and care of the grounds of the institution, $10,000; and for the necessary repairs of buildings already completed, $2,000; in all, $110,000.

FREEDMEN'S HOSPITAL.

The annual report of the surgeon in-chief of the Freedmen's Hospital furnishes some interesting information in relation to the origin of the institution. During the last fiscal year 480 patients were treated in the hospital and asylum; the inmates of the Colored Orphan's Home, over ninety in number, received medicines and attendance whenever necessary; 64 out-patients were furnished with subsistence, medical attend-

ance, and clothing; and 466 dispensary patients were prescribed for. Of the number treated in the hospital and asylum, (480,) 191 were admitted during the year; 144 were discharged—114 as cured and 30 relieved; and 71 died; leaving 265 patients under treatment on the 30th day of June, 1875.

PROVIDENCE HOSPITAL.

Congress having appropriated the sum of $15,000, or so much thereof as may be necessary, to be expended under the direction of the Secretary of the Interior, for the "care, support, and medical treatment of 75 transient paupers, medical and surgical patients, in some proper medical institution in the city of Washington, or in the District of Columbia, under a contract to be formed with such institution," a contract for this purpose was entered into, on the 5th of June last, with the Sister Superior of Providence Hospital, to take effect from and after July 1, 1875. On the 30th of June last 117 patients, admitted to the hospital under a previous contract, remained under treatment, and during the three months next ensuing 137 persons were admitted under the present contract, making a total of 254 patients treated therein during the quarter. Of this number, 112 were discharged and 12 died; leaving 130 patients in hospital on the 30th ultimo.

COLUMBIA HOSPITAL FOR WOMEN.

During the last fiscal year 2,696 women received treatment at the Columbia Hospital for Women and Lying-in Asylum, of whom 2,581 were received during the year. Of the whole number, 343 were treated in hospital, and 2,353 in the dispensary. Eighteen hundred and ninety-one patients were cured, 349 relieved, 28 died, 40 were discharged incurable, and the results of 174 cases are unknown; leaving 214 cases under treatment at the end of the year. Four hundred and four patients were natives of foreign countries, and 1,076 were residents of the District of Columbia.

The estimates for the next fiscal year are as follows: For the support of the institution, over and above the probable amount to be received from pay-patients, $24,300, and for a new roof to the building $9,500; a total of $33,800.

GEOLOGICAL SURVEY.

The results of the geological and geographical survey of the Territories, conducted during the past season by Messrs. Hayden and Powell, under the direction of this Department, will, it is believed, equal in interest and importance those of any previous year. In addition to the practical kowledge thus obtained of the characteristics and resources of extensive sections of our territorial domain, the survey has performed timely service in making collections of fossils, Indian curiosities, prehistoric relics, &c., for a more complete representation of such

objects, in connection with the collection now in the Smithsonion Institution, at the Centennial Exhibition of 1876.

The survey under F. V. Hayden continued its labors of the two preceding years in the Territory of Colorado. The field of work during the past season was the southern and western portions of said Territory, and including a belt, fifteen miles in width, of the northern border of New Mexico, and the eastern border of Utah. The survey was divided into seven parties, four of which were devoted to topographical and geological labors, one to primary triangulation, one to photographic work, and one to the transportation of supplies.

The survey of the southern and southwestern portions of Colorado has been completed, so as to make six sheets of the physical atlas, designed by this Department, leaving unexplored only the northwestern corner thereof, which can be surveyed by a single party during the coming year. The districts explored the past season were not so mountainous as those of previous years, but were quite remote from settlements, and in perhaps the most inaccessible regions of this continent. The total area surveyed was about 30,000 square miles, portions of which were very rugged. Much of this area is drained by the Colorado River, and is mainly a plateau country, cut in every direction by deep gorges or cañons, the sides of which show, for geological investigation, admirable sections of the strata forming the earth's crust. The topography of the district surveyed was elaborated in detail by the aid of the plane-table.

The exploration of the remarkable prehistoric ruins of Southern Colorado, glimpses of which were obtained the preceding season, was continued with great success. They were traced down the cañons to the Colorado River in New Mexico, Utah, and Arizona, and their connection established with the cliff-cities of the Moquis of the latter Territory. Hundreds of cave-dwellings, of curious architecture and many miles from water, were found in the sides of the gorges, and the ruins of extensive towns discovered in the adjacent plains, indicating the former existence of a people far more numerous and advanced in the arts of civilization than their supposed descendants of the present day. Of these ruins many interesting sketches, plans, and photographs were made, and a valuable collection of flint weapons, earthern-ware, and other specimens was gathered. The materials thus obtained will enable the survey to present an exhaustive report on this interesting subject. The photographer of the survey obtained a series of mountain views on plates 24 inches long by 20 wide, or larger, by several inches, than any landscape-photographs ever before taken in this country.

The survey under J. W. Powell continued the labors of the preceding year in the Territory of Utah. Nearly ten thousand square miles of country were surveyed during the season just closed. This area is much diversified in surface, containing two important ranges of mountains and extensive table-lands; the whole drained by the Colorado River and its tributaries. The field of labor was extended into the western portion of

Colorado, for the purpose of connecting its work with that of the survey under Dr. F. V. Hayden; and, also, into the southern part of Wyoming, in order to connect with the work of the survey of the fortieth parallel, conducted in past years by Clarence King. For a correct delineation of the topographic features of the country, a connected plane-table sketch was made over the entire area, and, as accessory data, perspective profile sketches, showing the characteristics of the slopes, and drainage-sketches, indicating the meandering of water-courses, the outlines of cañons and valleys, &c., were taken.

The whole area surveyed during the season is classified by Mr. Powell as follows: Pasture-lands, 50 per cent.; timber-lands, 9 per cent.; mineral-lands, 4 per cent.; irrigable lands, less than 1 per cent.; and the remainder, over 36 per cent., waste lands. The distribution of these lands will be represented, in appropriate colors, on the physical atlas. The collections, made during the year, in ethnography, paleontology, geology, and lithology were unusually large; and copies of prehistoric etchings discovered on the cañon-walls and rock-escarpments of the country, with a large number of photographic views, illustrative of its geological and geographical characteristics, were taken. The location of numerous dwellings, once occupied by the ancient inhabitants of the country, will be indicated on the ethnographic map of the survey. Mr. Powell reports that he will soon publish a table showing the groups of sedimentary strata of the Colorado plateau, based, primarily, on the study of its structural geology, but fully confirmed by its paleontology.

NEW JAIL.

The new jail in and for the District of Columbia is rapidly approaching completion. It appears, from the report of the supervising architect, that the progress of the work was somewhat retarded by delay on the part of the contractors in furnishing cut stone. He states, however, that the work has progressed rapidly during the past six months, and that the building will be roofed in and practically finished, ready for the reception of prisoners, before the 1st of December next.

Contracts were awarded during the year ending October 31 last, by the board of jail-commissioners, for cut stone, iron-work, roofing-slate, heating and ventilating apparatus, plumbing and gas-fitting, kitchen-apparatus, sheet-copper work, roofing-paper, plastering, and labor and mortar for completion of the building. The supervising architect states that, upon the completion of the jail, the several appropriations made by Congress for the purpose, amounting to the sum of $535,548.93, will have been expended. He submits the following estimates: For inclosing-walls, $45,000; coal-vault, $5,000; guard-house, $6,000; three elevators, $8,000; and for continuing the sewer from its present outlet to the bank of the Anacostia, $3,000; a total sum of $67,000. This sum, if appropriated, when added to former appropriations, would make the total cost of the jail $602,548.93.

ADDITIONAL ROOM.

I desire to renew the recommendation made by several of my predecessors in regard to the urgent need of more room than is now afforded for the proper accommodation of the clerical force, and for the better care and preservation of the files and records, of the several Bureaus of the Department. The steady increase in the public business committed to my supervision makes this want more pressing with each recurring year, and it is becoming a matter of absolute and imperative necessity that some means be adopted to meet the needs of the Department in this respect.

I am, sir, very respectfully, your obedient servant,

Z. CHANDLER,
Secretary of the Interior.

The PRESIDENT.

PAPERS

ACCOMPANYING

REPORT OF THE SECRETARY OF THE INTERIOR.

REPORT OF COMMISSIONER OF GENERAL LAND OFFICE.

	Acres.
Disposals of public lands by ordinary cash sales	745,061.30
Military-bounty-land-warrant locations, under acts of 1850, 1852, and 1855	137,000.00
Homestead entries	2,356,057.69
Timber-culture entries	464,870.16
Agricultural-college-scrip locations	9,432.02
Certified to railroads	3,107,643.14
Land approved to States as swamp	47,721.25
Certified for agricultural colleges	22,321.24
Certified for common schools	142,388.11
Certified for universities	16,454.04
Internal-improvement selections approved to States	8,614.25
Sioux half-breed-scrip locations	1,526.45
Chippewa half-breed-scrip locations	11,181.64
Total	7,070,271.29
Disposals of previous year	9,530,872.93
Decrease in disposals	2,460,601.64

CASH RECEIPTS UNDER VARIOUS HEADS.

Purchase-money of land sold	$1,382,281 52
Homestead-fees	185,970 00
Commissions	159,125 80
Timber-culture fees	36,430 00
Commissions	14,572 00
Agricultural-college-scrip fees	236 00
Fees for exemplifications furnished by General Land Office	5,385 95
Total	$1,784,001 27

		Acres.
Total area of the land States and Territories		1,834,724,856.00
Surveys during past fiscal year	26,077,531.86	
Previously surveyed	654,175,562.35	
Total surveyed to June 30, 1875		680,253,094.21
Leaving yet to be surveyed		1,154,471,762.79

List of papers composing the annual report of the Commissioner of the General Land Office.

1. The General Land Office and its several divisions—duties thereof; office-work of each division during the fiscal year ending June 30, 1875.

2. The extent of surveys of the public lands during said fiscal year, according to the returns made to this Office; also, tabular statement

showing comparative progress of surveys and disposal of public lands during the last ten years.

3. Surveys of Indian lands in the States and Territories during the year ending June 30, 1875, under contracts entered into by the Commissioner of the General Land Office and surveyors-general, pursuant to act of Congress approved April 2, 1864, and departmental directions.

4. Survey of abandoned military reservations.

5. Astronomical surveys of boundaries between States and Territories.

6. Description of the principal surveying-bases and meridians governing the surveys of the public lands.

7. Completion of surveys in Kansas.

8. Abstract of surveying-operations in seventeen different surveying-districts, under the immediate supervision of the respective surveyors-general.

9. Tabular statements of contracts entered into for the survey of Indian lands under the appropriation of $191,820, made by Congress March 3, 1875, for the fiscal year ending June 30, 1876.

10. Office-work performed in surveying and draughting divisions during fiscal year.

11. Operations under the laws relating to private land-claims, donation claims, mission claims, Indian cases, and certain cases of scrip.

12. Of pre-emption.

13. Town sites.

14. Cherokee strip.

15. Homesteads.—Operations under the homestead laws.

16. Timber-culture.—Entries and promotion of the culture of timber on the public lands.

17. Rights of Indian settlers on the public lands.

18. Educational-land bounty.

19. Kansas Indian lands.—Action of Office under act of Congress of May 11, 1872, in regard to lands embraced within the Cherokee strip.

20. Useless military reservations.

21. Operations under the mining laws.

22. Bounty-land warrants, revolutionary bounty-land scrip, Porterfield scrip, Valentine scrip, agricultural-college scrip.

23. Statement showing the number of acres located in the several States and Territories, with bounty-land warrants during the fiscal year 1875.

24. Railroads.

25. Swamp-lands.

26. Decisions rendered during the fiscal year affecting private land and donation claims.

27. Decisions under the pre-emption laws.

28. Decisions affecting homestead rights.

29. Decisions affecting mining rights.

30. Decisions relating to lands embraced within the limits of railroad grants.

31. Decisions affecting holders of military-bounty-land warrants.

32. Circulars issued by the General Land Office during the past fiscal year.

33. List of United States surveyors-general, showing their place of residence.

34. List of district land-offices; changes made during the year 1875.

35. Annual report of surveyors-general for the fiscal year ending June 30, 1875, numbered from A to Q.

Tabular statements accompanying the annual report of the Commissioner of the General Land Office.

1. Tabular statement showing the extent of surveys of the public and Indian lands during the fiscal year ending June 30, 1875; the total quantity of land surveyed since the beginning of the surveying system, and the area remaining unsurveyed in each of the land States and Territories of the United States.

2. Statement of public lands sold, of cash and bounty-land scrip received therefor; number of acres entered under the homestead law of 1862; of commissions received under the sixth section of said act; also, land located with scrip under the agricultural-college and mechanic act of July 2, 1862, and commissions received by registers and receivers on the value thereof; and statement of incidental expenses thereon during the fiscal year ending June 30, 1875.

3. Statement showing the quantity of swamp-lands selected for the several States under acts of Congress approved March 2, 1849, September 28, 1850, and March 12, 1860, to September 30, 1875.

4. Statement exhibiting the quantity of swamp land approved to the several States under acts named in Table 5, to September 30, 1875.

5. Statement exhibiting the quantity of swamp land patented to the several States under acts approved September 28, 1850, and March 12, 1860; also the quantity certified to the State of Louisiana under act approved March 2, 1849.

6. Statement showing the State selections under the internal improvement grant of September 4, 1841, to the 30th of June, 1875.

7. Exhibit of bounty-land-warrant business under acts of 1847, 1850, 1852, and 1855, showing the issues and locations from the commencement of operations under said acts to June 30, 1875.

8. Statement showing the selections made by certain States of lands within their own limits under the agricultural-college and mechanic act of July 2, 1862, and supplemental acts of April 14, 1864, and July 23, 1866; also the locations made with scrip under said acts.

9. Statement exhibiting land concessions by acts of Congress to States for canal purposes from the year 1827 to June 30, 1875.

10. Statement exhibiting land concessions by acts of Congress to States and corporations for railroad and military wagon-road purposes from the year 1850 to June 30, 1875.

11. Estimate of appropriations required for the office of the Commissioner of the General Land Office for the fiscal year ending June 30, 1877.

12. Estimates of appropriations required to meet expenses of collecting the revenues from sales of public lands in the several States and Territories for the fiscal year ending June 30, 1877.

13. Estimates of appropriations for the surveying department of the General Land Office for the fiscal year ending June 30, 1877.

14. Estimates of appropriations required for surveying the public lands for the fiscal year ending June 30, 1877.

15. Table showing the time when the various railroad rights attach to the lands granted so far as at present determined.

16. Connected map of the United States from ocean to ocean, exhibiting the extent of surveys, land districts, seats of surveyors-general and district land offices; also localities of railroads of general interest.

17. Historical table of the United States and Territories, showing the date of organization of Territories and of the admission into the Union

of new States, the area of the States and Territories in square miles and acres; also the population of each at the taking of the last census.

During the past fiscal year there were received 56,400 letters, and 49,579 were written, covering 35,766 pages of folio record.

There were also 39,410 patents written and recorded; this includes 38,927 for entries made for cash and under the homestead and pre-emption laws, 31 under railroad grants, 23 under the swamp-land grants, and 429 mining patents; in all covering 42,000 pages of record.

Six thousand five hundred and sixty-seven circulars were transmitted to local officers and private individuals, and 4,500 maps were distributed.

By reference to the foregoing statement it will be seen that the disposals of public land under various heads for the last fiscal year amount to 7,071,271.29 acres, showing a decrease, as compared with the area disposed of in 1874, of 2,460,601.64 acres. The falling off, as compared with the disposals of the year immediately preceding in entries made for actual settlement, as evidenced by appropriations of the public lands under the homestead and timber-culture laws, is found to be 1,500,880.24 acres. This result may be attributed, in a large degree, to the devastation by grasshoppers, accompanied, in some places, by a season of unusual drought in the localities most inviting to homestead and timber-culture settlement, to which is to be added the falling off of emigration and the general business depression which has reached the agricultural as well as the other industrial classes of the country. As may be gathered from the general views submitted further on in this paper, it will be seen that, in my judgment, not only the present falling off, but a steady diminution for the future in this class of entries may be looked for, from the fact that, in the localities most desirable for homestead settlement, on account of the general fertility of the soil and the presence of conditions necessary to the honest observance of the requirements of the law, the lands, to a large extent, have passed to private ownership. It is also to be borne in mind that the rapid extension of railroads toward and beyond the borders of the then existing settlements has, in previous years, tended to induce settlement to the full and, perhaps, beyond the limit of the possible marketing with profit of agricultural products. The cessation of railroad construction during the past three years has tended to discourage this undue extension of settlement into the wilderness, and may probably have resulted in turning attention to the purchase and settlement of the large tracts of land still to be found in private ownership in the more settled portions of the West.

Lands west of the one hundredth meridian.

The early practice of the Government indicates that the public lands were at first regarded and administered solely with a view to the revenue to be derived from their sale. Gradually, however, the view was asserted that the real profit to the Treasury and to the people at large was not to be found in largest measure in the consideration paid, but rather in the productive forces which settlement and cultivation would necessarily bring into play. This idea has been formulated into a policy, and since the act of May 20, 1862, commonly known as the homestead law, has been the leading purpose in all legislative and executive action.

Thus far in the administration of the laws the general wisdom of the existing policy is amply shown. A period has, however, now been reached when exception ought to be made.

Legislation and executive practice have heretofore been suggested

and controlled by the physical and climatic conditions prevailing between the eastern boundary of the State of Ohio and the central portions of the State of Kansas and Nebraska, covering the valleys of the Ohio, the Mississippi, and the Missouri Rivers, and extending from the eighty-first degree to the ninety-fifth degree of west longitude. This is well classified as the "fertile belt" of the continent. To this region, agricultural in its every feature, both the exactions of the homestead and pre-emption laws in the matter of residence and cultivation upon the tract entered, and the limitation of quantity allowed to be taken by any one person, are of undoubted applicability. Beyond and westward of this belt, or in all that section lying between the one hundredth meridian on the east, and the Cascade Range and Sierra Nevada Mountains on the west, and, within these limits, from the Mexican line on the south to the international boundary on the north, a totally different set of conditions, geographical, physical, and climatic, are found to exist. Within this vast area agriculture, as understood and pursued in the valley of the Mississippi and to the eastward, has no existence. Irrigation is indispensable to production. That there are limited areas within which by its aid crops are and may be secured is true, but the proportion of land within the area now treated of, which, under the present system of disposals, can by this means be made productive, is insignificant. Under a system which would justify large expenditures and insure the utilization for purposes of irrigation of the whole volume of water reaching the valleys from the mountain streams, but a mere fraction of the whole great area could be made fit for tillage.

Leaving out of view the great mineral wealth of the region under discussion, and treating only of that portion of it supposed to fall within the purview of the laws for the disposal of the public lands not mineral, it may be safely affirmed that, except in the immediate valleys of the mountain streams, where by dint of individual effort water may be diverted for irrigating purposes, title to the public lands cannot be honestly acquired under the homestead laws. That cultivation and improvement which are required, and which are made to stand in the place of price, are impossible; and, if attempted, are without result. But the vast areas here referred to are not without value, and for a large acreage purchasers would be found if a system of sale should be authorized in accordance with the necessities of the situation.

I have adverted to the fact that the immediate valleys of the streams may be made productive by resort to irrigation, and this, too, without a larger outlay than could be provided for by the occupants of tracts limited as to extent by the provisions of the homestead and pre-emption laws. But there is a still larger area, possessing in equal measure the natural elements of fertility, which, under a liberal system of purchase, would also be utilized for farming purposes. I refer to lands lying along the general course of such streams as bear a volume of water larger than is required for irrigating the narrow margins of "first bottom" along their courses, to the mesa, or table lands of the central plateau. For their reclamation a system necessarily expensive, because involving canals or main ditches of great length and size, is required; and, hence, associated capital must be called upon to furnish the means of success. But the security for its repayment, even the inducement to furnish it, must be found in the lands to be benefited. It is only necessary to make this suggestion for it to become manifest that so long as disposals are hampered by the requirements, and restricted to the quantities prescribed by the homestead and pre-emption laws, this

class of lands must remain undisposed of, and their present waste condition be perpetuated.

Thus far I have treated of the limited portions of the central plateau, which, under favorable conditions, can be made to contribute in some measure to the volume of the cereal and vegetable products of the country. A still larger proportion of the belt now under consideration finds profitable use in the pasturage of large herds of domestic animals, sheep, cattle, and horses. The pasturage of the plains and mountain valleys is of great excellence. But here, again, the conditions under which that industry is prosecuted bear no similitude to those under which the same business is conducted within the "fertile belt," and the same incongruity is found in the application of existing public land laws, when tried by the reasonable wants of those in the stock business, as has been seen to exist in the case of the only lands fit for general farming uses. The quantity of land necessary to the support of a given number of domestic animals on the table lands is very largely in excess of that required for the profitable pasturage of a like number in the fertile belt. The excellence of the pasturage of the plains and valleys consists in the fact that the grasses, though thin and of slow growth, retain their nutritious qualities throughout the entire year, and in the further fact that, for the present, the range is only limited by the possibility of reaching suitable watering places.

For grazing purposes the limitation of the right of purchase to one quarter-section, and that under the impossible condition of cultivation, is to forbid the acquisition of title to pasture lands by citizens "careful of their proofs," and is, in effect, to withhold absolutely from sale that which, in fact, is now the largest remaining class of the public lands.

From the foregoing recitations it will be perceived that I have reached the conclusion that both public and private interests demand that that body of surveyed land within the "central plateau," so called, not embraced in the first bottom of the streams, and commonly known in the region where situated as the mesa lands, ought to be offered at the earliest possible day for cash purchase, and thereafter that portion remaining unsold be subject to private entry at $1.25 per acre. To the extent to which sales could be made the Treasury ought to be replenished from this source. Persons desiring to acquire title ought to be relieved from the necessity of making questionable affidavits requisite under the homestead and pre-emption laws. Every hinderance to the fullest possible production in this region ought to be removed. The mining industry of the mountains, though in its infancy, demands of food products a large share of all that are raised within the contiguous country. Referring again to the particular matter of the pasture lands, the policy of such sale may be urged as necessary to the good order of the communities where the business is generally prosecuted, as well as on the ground of justice to the class engaged in the pasturage calling. The present policy compels them to use the public lands as their feeding ground, having no better right to their selected range as against another whose purposes or seeming convenience may lead to an attempted occupation of the same ground than they may be able to assert by forcible means. Conflicts and uncertainties necessarily follow upon this state of things, to the detriment alike of order and development. This result must be intensified as the herds increase and desirable localities become monopolized.

Seeing no remedy for these threatening evils so long as the exclusive policy of withholding the public lands from sale is continued, interested parties have suggested a system of leasing by which, for a reasonable

rental, designated tracts might be held in individual control for pasturage purposes only; subject, however, to be defeated as to any part of the tract so held by a sale thereof under existing laws. I find, on examination of the "Crown lands occupation act" of New South Wales of 1861, and of the "Crown lands alienation act" of 1868 of the Colony of Queensland, that a system of leasing having the features above indicated is applied to the pasturage districts of these colonies. That such a system might be advantageously adopted within our own grazing districts west of the one hundredth meridian is possible. It is not, however, in consonance with the established methods of our land-system, and would require legislation to authorize it. I am of the opinion that the immediate necessities of the situation can be better met by an offering of this class of lands at public sale. This can be done to the extent that surveys have progressed, under the provisions of existing law.

I have endeavored generally to indicate that offerings of the public lands west of the one hundredth meridian would not be inimical to the objects of the prevailing policy which has tended to restrict disposals to the homestead and pre-emption laws. The facts will justify the declaration that the policy of restriction has retarded actual settlement in this region, while the record shows that in many localities it has been the fruitful source of fraud—fraud so glaring as to call into exercise the powers of grand juries—not, however, into successful or preventive exercise. Prosecutions for irregularities in obtaining title to the public lands find little sympathy among communities hindered in general and individual progress by being made subject to conditions inappropriate to their surroundings.

I recommend, therefore, without hesitation, as a matter of justice, both to the individual settler and the communities interested, as well as in view of the amount to be secured to the Treasury in re-imbursement of the large sums expended for surveys and the general administration of the land system, that the policy of public offerings authorized by law be resumed at an early day as to lands west of the one hundredth meridian embraced in the description of mesa or table lands.

PINE AND OTHER TIMBER LANDS.

In my last annual report I felt called upon to make earnest representations touching the necessity for additional legislation respecting the survey and sale of that portion of the public lands valuable chiefly for timber. The matter seems to me of sufficient importance to warrant a repetition here of the views then expressed. They are as follows:

> My attention has been attracted to what seems to me an omission in the laws governing the disposal of the public lands. During the last forty years the legislation relating to this subject has been prompt and apt in providing specific methods of entry and sale, at discriminating prices, of lands shown to be exceptionally valuable for other than agricultural uses; as instance the laws regulating the sale of such portions of the public domain as contain gold, silver, iron, lead, cinnabar, copper, coal, sulphur, &c. The fact has also been recognized that the lands embraced in abandoned military and Indian reservations have been greatly enhanced in value by reason of their having been brought, by long severance from the mass of the public lands, to the very threshold of an eager market, and their disposal has been wisely provided for upon a judicious appraisement of such value; but I fail to find, from the beginning of the Government to the present time, a single enactment of Congress providing any distinctive method for the disposal of that vastly extensive and proverbially valuable class of lands known as "pine-lands." These lands are notoriously unsuited to general agricultural uses, but have been held subject only to pre-emption and homestead entry.
>
> The product of these lands is of universal use, and forms the staple of commerce of no inconsiderable portion of the nation. The difference between the Government price and the actual value thereof is large, yet Congress provides that these lands shall be

disposed of under the pre-emption laws at $1.25 per acre, or under the homestead laws by commutation under the eighth section of the act of 1862 at the same rate.

It is true that the law provides that in the discretion of the President this class of lands may be proclaimed and sold at public outcry to the highest bidder, but the experience of this Office shows this method to be entirely ineffectual, for the reasons—First, that under the ordinary system of surveys the "field-notes" cannot disclose, with any degree of accuracy, which are pine lands and which are not; and, second, that there is little room for doubt that combinations are formed among purchasers at Government public sales, whereby prices are kept down to a merely nominal figure. The usual result is, therefore, the Government receives the minimum price of the lands, *less the large expense of three months' advertising required by law.* Another and greater evil results from such public sales under existing laws. This Office having, as I have before stated, no reliable means of distinguishing pine lands, it is reduced to the necessity of including in the proclamation all lands *supposed* to contain pine. It results that only such small proportion of the tracts proclaimed as are known to the purchasers to contain pine are sold, while the great mass of them, receiving no bid, remain with the Government as "offered lands," *subject thenceforth to private cash purchase without settlement,* and become the easy prey of non-resident speculators, thus defeating the now well established and beneficent policy of the Government in that regard. The remarks here made apply as well to the "fir lands" of the Pacific as to the pine lands east of the Rocky Mountains, and are indeed of more importance as bearing on the question of the future disposals of "fir land," since the quantity of "pine lands" remaining unsurveyed and unsold is now comparatively limited. Under this state of facts I would urgently recommend the passage of a law providing:

First. That pine and fir lands shall not be subject to entry under the pre-emption and homestead laws.

Second. That a system of survey shall be devised by which the quantity of pine or fir in each smallest subdivision of a section may be at least closely approximated.

Third. That an immediate exploration by experts of the unsurveyed portions of those States and Territories known to contain pine or fir be authorized, with the view of ascertaining the geographical situation of pine and fir districts or fields.

Fourth. That the reports of such explorations be followed by immediate survey of these districts.

Fifth. That survey be followed by immediate appraisal, proclamation, and sale, at not less than the appraised value, and for cash only.

As I have indicated in the foregoing suggestions, I am strongly of the opinion that the wisest policy the Government can pursue in respect to this class of lands is that which will most speedily divest it of title in the same for a fair consideration, for the reason that depredations to an enormous extent are constantly occurring, which existing laws are powerless to prevent and seemingly equally powerless to punish.

Further experience and observation leave nothing to be withdrawn from these recommendations. It is among the traditions of this Office—certified indeed by its records—that from a very early day eagerness to acquire title from the Government to these exceptionally valuable lands for speculative purposes has led to the perpetration of innumerable frauds. It is notorious that, as a rule, the soil itself of these lands possesses but limited fertility; and it is equally certain that such of them as are entered upon under the pre-emption and homestead laws, are not generally so taken with a purpose of adding value to the tract by cultivation, but rather with the expectation of profiting by the after-sale of the timber growing upon it. Through the facilities furnished by that provision of the pre-emption laws which, for unoffered lands, extends to applicants a credit of thirty-three months, opportunity is found, under cover of the "declaratory statement" which gives to the pre-emptor protection in his possession of the tract, to strip the lands of their timber and thereupon to abandon them without even the payment of the minimum price.

The citation and remarks made under this head are chiefly applicable to lands of the class designated lying eastward of the Missouri River, and along the Pacific coast.

Another class of timber lands, not heretofore referred to in any of the reports of this Office, demands early attention. I refer to the wooded portions of the mountain ranges of the West, including the Pacific slope. Up to this time, except in some of the more accessible portions of the

State of California, the public surveys have not been extended over this class of lands; yet from them have been taken the vast supplies necessary for mining and smelting operations, for the building and maintenance of railways, and, indeed, for the supply of every form of industry and improvement within the district of country embracing the same into which timber enters as a necessary part. Data are not accessible for forming an estimate of the value of the public property thus used and destroyed without return to the Treasury. That it is very great will readily be perceived. Aside from the duty of protecting the Treasury in respect to this species of public property, there are other and grave reasons for immediate action in the premises. The great industry of the mountain belt is the mining and smelting of the precious metals. The importance, in a national point of view, of exercising a provident care over every adjunct which may be indispensable to its successful prosecution need not be urged. That there are within the mountain ranges comparatively large bodies of timber is known. This is a general fact. Yet, of timber which is accessible, which can, without too great an expenditure, be brought into use in given localities, the supply is by no means large. In some of the more important mining centers the destruction and waste now going on are viewed with alarm, and there is undisguised anxiety for the future.

I have remarked that this class of lands has not been surveyed. Title, therefore, cannot be obtained. It follows that persons whose necessities require the use of timber are compelled either to become themselves depredators on the public lands, or to connive at such depredations on the part of others from whom their supplies are purchased. In either case the result is the same. Only such parts of the tree, when felled, as can be most profitably used are made available; the rest is left to decay or to add to the general destruction caused by the periodic mountain fires. Under this state of things timber has, in many instances, totally disappeared for miles in the vicinity of the larger mining centers. Incidental to this general waste is another result often disastrous in immediate effects and threatening in future consequences. The mountain streams, whose steady flow is important alike to the miner and to the agricultural interests of the valleys and plains below, are fed by the melting snows. The steadiness of the flow of these streams—the preservation of their volume throughout the whole year—so long as natural conditions prevail, is in great measure due to the fact that over large areas of the higher levels the rapid melting of the winter's accumulation is prevented by the dense shade of the forests. This removed, destructive floods in the season of returning warmth, to be followed later by scarcity, become the rule. It may be noted also, as another incident to this total destruction of timber along the cañons, that "snow-slides" are of frequent occurrence in the denuded localities of the mining settlements, and that during the past winter some were attended with serious loss of life and property.

These results, thus briefly noted, need no further elaboration. They are the same which everywhere stand recorded as following upon like improvidence. In Europe they have formed the subject of much study, and large attention is now being given by governments and people to the subject of staying further waste and restoring again the order of nature. It seems the part of wisdom and of duty to apply in the beginning any preventive measures which may suggest themselves. The timber of our mountains is of slow growth, and once destroyed does not seem to renew itself.

The problem presented by these facts is not easy of solution. It must,

nevertheless, be attempted at an early day. In order to apply any remedy, or to begin even the assertion of any effective control over this portion of the public lands, they must be identified by survey. The necessary modifications in present practices, and in the price to be allowed for the service, will be treated of in that portion of my report relating to the surveys. In any presentation of suggestions under this head, the question is not so much what ought to be done in order that the present situation may be fairly met and the future be so secured as to accomplish all that is evidently desirable, as considering the peculiarities of the case, and admitting the probable difficulties of carrying into effect any purely preventive measures requiring the intervention and continued supervision of the agents of the General Government, to determine what practical steps are possible to give reasonable promise of bringing about advantageous results. Perhaps the best method—recognizing the ends it might be desirable to subserve—would be for the United States to retain the title to the lands, selling only the right to appropriate such proportion of the growing timber upon any given subdivision as should yet leave a sufficient quantity standing to secure the shade and moisture necessary to the results before mentioned. But however desirable such a system might prove, it will at once be perceived that to make it in the smallest degree effective would require the constant presence and intervention of agents of the Government, involving an expenditure for their support, and furnishing opportunities for fraudulent collusion and unjust exactions, which might well be considered as overbalancing the possible good to be attained. The practical ends to be accomplished are to stay waste, and to see that this class of the public property makes due return to the Treasury. As recommended in the case of the timber lands east of the Missouri and along the Pacific slope, I believe that these results may be reached by placing the lands, through their sale, under private guardianship. If opportunity were given by proper survey and offering, it is not doubted that mine and mill owners would become purchasers of such tracts as are found accessible to their property. It would then be their interest to protect the purchased tract and to see that no improvident consumption was allowed. Reasonable facilities for the purchase of timber lands being thus provided, the law against depredations, which in the absence of surveys is practically inoperative, could and ought to be rigorously and relentlessly enforced. The homestead and pre-emption laws have no possible application to this class of lands. It ought to be so declared by statute. The question of limiting the quantity to be sold to any one person may be worthy of attention in framing legislation on the subject, though it is doubtful if any provision of that character could be made effective. A more important reservation necessary in such sales would be to retain in the United States the unqualified right to all valuable deposits of minerals found in the lands so sold for their timber, with full power, except as to any trees remaining thereon, to sell the same upon application under the mining laws.

THE PUBLIC SURVEYS.

Thus far in the progress of the surveys their execution has been without apparent discrimination, but has proceeded upon the theory that, when at all practicable, all of the public lands should be put in condition for sale by the identifications of survey. Beginning in the now State of Ohio in the year 1786, they have progressed steadily

to the westward, well-nigh keeping pace in their completion within political divisions with the admission of States into the Union. Of the admitted States on the Atlantic side of the continent, Nebraska and Minnesota only have any large area remaining unsurveyed. The conditions existing within this area have generally justified such indiscriminate progress. The lands eastward of the ninety-fifth degree west longitude have presented no obstacle to their easy and almost complete segregation, while their general fertility and adaptability to some possible economic use have given reasonable promise of their eventual sale. Westward from that point different conditions obtain, and I am most decidedly of the opinion that a continuance of the practices thus far prevailing will result in great waste of the public money. I am not satisfied that such waste has not already been incurred by running the surveys in localities west of the one hundredth meridian, where, from lack of water and through the general prevalence of barren conditions, the probability of settlement is so remote that all traces of the work done must disappear before its purpose can by any possibility become available.

Heretofore, as a rule, the surveyors-general have been left to the exercise of their own discretion as to the locality within their surveying districts where each year's appropriations should be expended. With a view to the avoidance—so far as the supervisory powers of this Office will permit—of unnecessary surveys in the future, they have been called upon, in addition to their usual estimates for surveys, to report in detail the localities it is proposed to survey during the ensuing year, and their reasons for such selection.

The conditions of the problem now presented for solution seem to be a discriminating progress, which, recognizing the fact that large areas must for an indefinite period remain unsold, shall look, first, to the execution and extension of the necessary base and standard lines, from which, as occasion may arise, the subdivisions can be extended; and, second, to the subdividing of tracts that have already attracted settlers, or that on account of the prevalence of peculiar conditions—as, for instance, timber tracts—may require early attention.

It may generally be considered that, as to the mountain districts proper, under the present system, no survey with a view to sale, or with any expectation of finding purchasers for them as agricultural lands, will ever be required. This is also true of very large areas of level lands which are unmistakably desert. Nevertheless, the intervening valleys will require survey. Necessarily, under such circumstances, the tracts found to be worth the expense of executing the surveys, will be detached. These localities will be far apart, thus necessitating the establishment of base and standard lines with much greater frequency than has been required in the progress heretofore made; and I am of the opinion that the appropriations for the next fiscal year may in some of the surveying districts be principally applied, with profit, to that work.

Recognizing the fact that whatever may seem to imply an innovation upon long-established practices, is apt to be looked upon with disfavor, I nevertheless deem it proper to suggest that, in my judgment, reform is needed in the method of executing the public surveys. The existing system, in the matter of the details of its execution, seems to have been based at its inception upon the theory of present convenience. As a means of present identification, of easy and simple description, it was as admirable as it is admitted to have been original. The element of accuracy is not, however, attainable under its method, and, what is of equal or perhaps greater importance, the element of permanency cannot be claimed

for it. These faults of the system readily suggest themselves. The chain and solar compass, which are the principal instruments of execution, are now regarded as among the ruder appliances of engineering-science. They were and are, however, under all the circumstances, the best adapted to the sole ends which have thus far been in contemplation in the execution of the surveys; and in the hands of competent and conscientious deputies, are sufficiently accurate for the survey of regions moderately level. For the survey of mountainous tracts they are unfit.

The requirements of the manual in the matter of monuments, marks, &c., which constitute the evidences of the survey upon the ground, are, even when up to the full measure of honest performance, of such a character that they must soon disappear. The corner-posts, usually of wood, yield to decay; settlement and cultivation conspire with the elements to obliterate pits and mounds, and the clearing away of forests effaces all traces of the surveys on timbered tracts. The very large correspondence with this Office by persons (county surveyors and others) seeking information upon which "lost corners" may be restored, often disclosing the fact that such information is needed for use in pending litigation respecting "disputed lines," gives evidence that, however well other ends may have been subserved, the permanent marking of the tract originally surveyed—if ever intended as an element of the system—has thus far failed of accomplishment. These remarks, it will be perceived, call in question the manner of execution, not the system itself. Well and permanently done, it is doubted if a better could be devised for the segregation of agricultural lands.

The field-notes of the surveys, duplicates of which are preserved in this Office, may be resorted to as a means of re-establishing obliterated lines and corners, but this presupposes that somewhere within reasonable distance evidences of an original corner are to be found. In many localities, after the lapse of a few years, such evidences will be looked for in vain. It thus happens that, in proportion as, by the passage of time, lands become so valuable as to excite contention and litigation, the evidences which should be at hand for a certain and inexpensive settlement of such controversies cease to exist. The remedy suggests itself. The manual of surveys, which, by act of Congress, is made a part of the law of the land, should be so reformed as to require the erection, in future, of indestructible monuments. Such a reform would, in some measure, increase the cost of the surveys, and it is not presumed that authority will be readily given for the substitution of expensive monuments at all the required corners; but I do not hesitate to urge that Congress be requested to provide by law for marking, by monuments of stone or iron, some of the corners of all the principal meridians and bases, hereafter to be run. At each six-mile or township corner, if at no more frequent points, this should be done. Such a course for the future is not only demanded as a safeguard to the integrity and perpetuity of the work to be done, and as a matter of true public economy, but there are other reasons now to be noted why the surveys made under the direction of this Office should be hereafter executed with scientific accuracy, and some at least of their evidences be made indestructible. The geographical and geological sciences are attracting marked attention among all the civilized peoples of the earth. They are not only pursued through the promptings which love of learning, coupled with a desire for the mastery of the secrets of nature, inspires, but it has come to be perceived that for utilitarian purposes the cost of their practical illustration, great though it be, is trifling when compared with the value of the results which may reasonably be expected to flow from the

faithful execution of such work. In no country is this more true than in our own. Congress, recognizing this fact, has, for some years past, made liberal provision for geological and geographical surveys west of the Mississippi. The surveys of this class now progressing under the direction of the Interior and War Departments, are, and for the future presumably will be, carried on in the same general region where the public land surveys are being made; one ought to supplement the other, and can be made to do so, to the ultimate saving of expenditure, to the prevention of frauds upon the Treasury through the acquisition of title to mineral lands under agricultural proofs, and to the better assurance of all the desirable results which ought to be insisted upon in a project involving so much expense. I do not mean to be understood as advising that any of the salient features peculiar to geological and topographical surveying proper be added to the land survey system. But, in grouping the results sought to be obtained by the comprehensive purposes of nearly all the civilized nations now engaged in that work within their own territories, it is seen that to general geographical, geological, and topographical features, is added the special feature of marking on the ground and delineating upon the completed maps the boundaries of individual and public possessions, and it is this most useful feature which it is insisted might and would be furnished ready to the hand of the explorer, were the land surveys executed with scientific accuracy, and their leading monuments properly and securely placed. The astronomical positions could then be determined by means of connections made with the triangulations of the coast and geographical surveys, thus compensating for the cost by avoiding, as to all future work, the necessity of a resurvey, either by State or national authority, which will some time surely arise as to much of the work done in the past. The further advantage will also be assured through such a connection of the systems that a principal monument of the public surveys, destroyed from any cause, can be re-established with absolute accuracy of position by reference to the connection-lines of triangulation.

General legislation respecting the disposal of the public lands has, from an early day, contained clauses of exception reserving mineral-tracts from ordinary sale. The acts approved July 26, 1866, and May 10, 1872, (to develop the mining resources of the United States,) and the act approved March 3, 1873, entitled "An act to provide for the sale of the lands of the United States containing coal," among other things, constitute these lands a distinctive class, subject to conditions of sale, and affixing prices, differing wholly from the requirements, in these respects, as to other lands. For coal lands the price fixed by law is "not less than ten dollars per acre." For mineral lands other than coal the price fixed is $2.50 per acre for placer, and $5 per acre for lode-claims. The responsibility of carrying into effect the discriminations thus created by law, devolves upon this Office. The means of discharging that duty are of the most meagre character. As has already appeared, the Land Office surveys are not in any sense explorations, hence large tracts now known to contain valuable mineral-deposits—notably deposits of coal—have, since the passage of the coal land law, passed to private ownership, under pre-emption proofs, at the price of $1.25 per acre. This state of the law, and the already noted lack of information upon which to proceed for the protection of the Treasury, have not only resulted, and will continue to result, under existing conditions, in a necessarily ineffective administration of the provisions of the several enactments intended to be protective of the Treasury and preventive of undue

monopoly of these classes of lands; but the effort made for their proper execution in the form of withdrawals of lands supposed to be of the excepted classes, and the requirement by office regulations that applicants to enter as agricultural, lands within the limits of withdrawal, shall only be permitted to do so after advertisement and a hearing had at their own expense, is both annoying and expensive and sometimes seems to justify the general complaint made against it. In short, the situation is such, that it may be said of it that it fails with any certainty to protect the Government; it annoys the citizen who is seeking a home by the imposition of onerous conditions; and it is calculated to retard settlement. As will readily be perceived, this Office has at command no remedy for these evils. They could be removed in great measure in the localities where the geological surveys have progressed, and in the regions where such surveys may in future be made, if the results of these explorations, so far as they determine the mineral conditions of particular sections, were promptly communicated to this Office. In other respects, also, this class of surveys might be made of substantial present value. From them might be learned with certainty what particular tracts within the scope of their operation are of a character requiring survey by this Office, and a prompt report made of such tracts as are unfit for settlement and cultivation might serve to prevent the wasteful expenditure of the public money in extending the surveys over them. No provision is made by law, nor, so far as I am aware, by regulation, through which this most useful and needed information can be obtained by this Office. Whenever the results of the several explorations now in progress shall be reduced to final form it will be within reach. But I submit that for the future the interests involved will justify energetic measures to secure for the use of this Office from the several parties conducting the work preliminary reports on the matter suggested, and an annual report which shall be full and accurate. For this I am of opinion provision should be made by law.

The suggestions I have felt it my duty to make in the matter of the execution of the surveys would, if carried out, involve a re-adjustment of the rates to be paid for the service. The time has come when, even under a continuance of the present practices, this should be done. Rates that have been largely remunerative, as is believed, under present allowances, in the survey of the level portions of the continent—heretofore generally the exclusive subject of survey—are inadequate for the work required in mountain districts. The more substantial marking of the principal meridians, bases, standard parallels, and guide meridians, and as to timber lands, the addition of the feature of partial exploration, with a view to gradation of the minimum price to be fixed on them, will necessitate an increase of price per mile for the work done. That in the end a material saving to the Treasury will be effected has, I think, been conclusively shown.

The following is a summary of the requirements of this Office for the more accurate and economic administration of its duties, which it appears might properly be furnished by the geographical and geological surveys authorized by Congress, viz: Datum-points established by the general system of triangulation, from which the public surveys may be the more advantageously extended; second, such a classification of the lands as irrigable lands, pasture lands, timber lands, mineral and waste lands, as would be sufficient to guide this Office in directing the rectangular surveys, so as to properly meet the wants of the settler, and at the same time incur no useless expenditure.

CONSOLIDATION OF THE PRE-EMPTION AND HOMESTEAD LAWS.

This Office has for several years past urged upon Congress the propriety, as well as the necessity, as a measure of sound public policy, of a repeal of the pre-emption laws; not, however, contemplating an entire obliteration of all of the features the pre-emption system, but, rather, having in view the unification of the whole subject of settlement rights by merging the valuable features of the pre-emption with the later homestead system. It is not now proposed to reiterate the reasons, which have from time to time been fully set forth in the reports of this Office and in its letters to the committees of Congress, showing why such a course seems advisable.

During the second session of the Forty-third Congress, a bill (H. R. No. 1760) prepared in this Office, having in view the ends now under discussion, (and which had previously passed the House,) was, at the request of the honorable William Sprague, chairman of the Committee on Public Lands of the United States Senate, reported on by me; the following views being expressed:

The reasons which call for a repeal of so much of the pre-emption system as is not preserved in the bill under consideration, among others, are that every beneficial purpose intended to be extended by that system is secured by the homestead law as now existing, save only the feature of settlement on unsurveyed lands, which is carried into this bill. The early policy was one of exclusion; the act of 1807 providing for the use of the military in ejecting any who might venture upon the public lands before purchase.

The end sought at that time seems to have been revenue from sales. Gradually this purpose gave way to the policy of encouraging settlements, first through the pre-emption laws, and at length by the homestead system.

The beneficial provisions of the pre-emption system were, and are, that settlement may be made before survey, and that a credit of from twelve to thirty-three months be given the settler on account of his purchase.

Settlement and cultivation were always kept in view. The homestead law reaches the same ends, but with larger beneficence; for, excepting a small fee and commission, no money payment is required.

The pre-emption law is, therefore, for every beneficial purpose intended by it, an obsolete statute. Its machinery is not necessary in the land system for any honest purpose consistent with the now-established policy of holding the public lands for actual settlers only.

Experience has, however, put it beyond all peradventure that it furnishes a means of fraud in daily use, by which the choicest of the lands are gathered into the hands of a few, to be held for prices far above that fixed upon them by the Government.

It is notorious that under their cover large tracts of coal lands—valleys and streams which control the values of large tracts of surrounding country—are continually gathered into the hands of a few persons, who are able to employ agents willing to make the pretense of settlement, on which they can justify to themselves the false affidavits requisite to the success of their frauds. Since the discontinuance of the system of offering lands at public sale, the pre-emption system has become, and is now, peculiarly the *speculators'* law, as contradistinguished from the *settlers'*.

Under the present state of the law, the settler may have the right of choice as a pre-emptor, and may, in addition, have the homestead privilege. I think it may well be questioned if this is not an excess of privileges, which would be well obviated by the passage of the amended bill. It is not presumed that this, or any measure that might be enacted, will wholly prevent the obtaining, by fraudulent means, of title to the public lands; but this may be said: that the pending bill contains such provisions as the experience of years has suggested to this Office as necessary to the honest and efficient conduct of the public land system, to certainty and simplicity of administration, and to the accomplishment of the recognized purpose of holding the public lands for the benefit of actual and productive use.

ACT OF JUNE 21, 1866.

Coupled with the question of the consolidation of the homestead and pre-emption laws is that of amendment of the homestead law in certain of its specific features.

The act entitled "An act for the disposal of the public lands for

homestead actual settlement in the States of Alabama, Mississippi, Louisiana, Arkansas, and Florida," approved June 21, 1866, among other things, provided that from and after that day all the public lands in the States named should be disposed of "according to the stipulations of the homestead law of 20th May, 1862," and the act supplemental thereto, approved March 21, 1864.

This restriction is continued in force, and is now found embodied in section 2303 of the Revised Statutes of the United States.

Whatever may have been the exigencies which, at the time of the passage of this act, seemed to justify its policy of exclusion, certain it is that there are not now existing, nor likely to arise in the future, any conditions rendering its continuance necessary.

It is unequal and obnoxious, in that it denies to citizens of the States named the equal privileges enjoyed by their fellow citizens of other States with respect to lands within their borders. For this reason the section ought to be repealed; but added to this is another reason of grave importance why an early repeal is desirable.

In the States to which this act refers a large, and perhaps the largest, portion of the public lands remaining to the Government is covered with valuable timber.

It is "offered land," and would be in the market for cash sale at private entry but for the act of 1866. The soil of most of this land is notoriously barren, and is valuable only for its timber.

Since the close of the war of the rebellion attention has been attracted to these timbered tracts, and in many localities they have been subject to wholesale depredation, their product forming the basis of a large commerce, employing extensive mills for manufacture, ships for transportation, and being distributed generally along the Atlantic seaboard. The wrong thus done the Treasury is not altogether carried on in open defiance of the law, but there is, to some extent, an observance of its forms. Laborers employed in lumbering operations are induced to make homestead entry of desirable tracts, and there is thus obtained shelter from interruption while the work of removing the timber goes on. Once removed, the land is abandoned, and thenceforward, for an indefinite period, may be considered as useless for any purpose. The Treasury, however, has been robbed in the mean time of its value.

The repeal of the existing prohibitions would tend toward a discontinuance of present practices, by enabling persons to acquire title to desirable tracts by direct purchase. In addition to what I have said, looking toward a repeal of the existing prohibition against acquiring title to the lands in question by cash entry, it seems to me proper to suggest that these "timber lands" of the South, and all others of their class—that is, all of the unsold "offered lands," which are *chiefly valuable for their timber*—might well be made to fall within the rule of exclusion, to the extent, at least, of declaring them not subject to homestead entry; which course has already been recommended in the case of the unoffered and unsurveyed timber lands.

It is not perceivable upon what rule of justice to the whole people a few are permitted to prey upon the common property, for, as I have before endeavored to make it appear, in regard to timbered lands of the class under consideration, their appropriation under the homestead law cannot be followed by their improvement; clearly, therefore, the policy of continuing to hold them subject to homestead entry can find no other defense than that, by so doing, the system of sales is kept uniform.

I do not think that this will be considered, upon due reflection, a sufficient ground for a further sacrifice of the common property. Another

reason, special in character, may be urged as a ground for the repeal of the section. Its prohibitions work peculiar hardships to the beneficiaries of the act of June 2, 1858, (11 Stats., 294,) which provides for indemnity locations in confirmed, unsatisfied land claims; and to parties entitled to scrip by decrees of confirmation rendered by the Supreme Court of the United States, under act of June 22, 1860, (12 Stats., 85,) revived by act of March 2, 1867, and revived and amended by act of June 10, 1872, (17 Stats., 378.) The indemnity provided by these acts is only locatable on lands of the United States, subject to sale by private entry at not more than $1.25 per acre.

The beneficiaries referred to generally live in the States embraced by section 2303 of the Revised Statutes, and in which, therefore, no private entries, either with scrip or cash, are allowed; they must needs, therefore, sell their scrip to speculators at a ruinous discount, or exile themselves from their homes in the South, and locate new homes with their scrip elsewhere, beyond the interdict of the existing provision, or, remaining in their present places of residence, locate their scrip in some distant State or Territory, and so become non-resident land owners with all the evils to themselves, and others incident to that condition. The repeal of this discriminating legislation would, by enabling such beneficiaries to locate their scrip near their homes, conduce to make it what it was intended to be, but is not now, a substantial indemnity for their confirmed claims.

THE REVISED STATUTES.—PROBABLE ERRORS IN COMPILATION.

The administration of the law relating to the public lands during the past year has brought to the attention of this Office what seem to be errors of compilation, whereby changes of the law in important particulars have been brought about, evidently not designed, on the part of Congress.

Section 2401 of the Revised Statutes of the United States provides a means by which settlers may have the township within which their residences are found surveyed under the authority of the proper surveyor-general, upon compliance with certain conditions specifically set forth, among which is the requirement that they "deposit in a proper United States depository, to the credit of the United States, a sum sufficient to pay for such survey, together with all expenses incident thereto."

Section 2403 provides as follows:

> Where settlers make deposits in accordance with the provisions of section twenty-four hundred and seven, the amount so deposited shall go in part payment for their lands situated in the townships, the surveying of which is paid for out of such deposits.

An examination of section 2407 discloses the fact that it bears no relation to section 2403, nor is in any manner aided or affected by its provisions. Undoubtedly the section intended to be referred to is No. 2401. So understood, the law would remain as it was previous to the enactment of the revision. In its former state the law was eminently wise, though not altogether just to the settlers, for it sometimes happened that the cost of the survey of the township was in excess of the amount of the purchase-money of the tracts the settlers were entitled to enter, and it thus resulted that the Treasury was relieved in the matter of the cost of survey of a part of the public land to the extent of the difference between the amount paid for the survey of the township and that credited to the parties as purchase-money on making their entries under the pre-emption law.

I recommend that the law be restored to its former condition, which may be done by striking out the words "twenty-four hundred and seven,"

in the second line of section 2403 of the Revised Statutes, and inserting in their stead the words "twenty-four hundred and one."

In a few cases since the approval of the Revised Statutes, and before the fact of the change in the law resulting therefrom was brought to the attention of this Office, payments were made for surveys, and in some instances the credit of purchase-money illegally allowed. It seems just that in such cases the allowance of the credit be now legalized by a proper curative act, otherwise the parties must be called upon to make an additional payment before patents can be issued to them.

The act approved August 3, 1846, entitled "An act providing for the adjustment of all suspended pre-emption land claims in the several States and Territories," in section 1, reads as follows:

That the Commissioner of the General Land Office be, and he is hereby, authorized and empowered to determine, upon principles of equity and justice, as recognized in courts of equity, and in accordance with general equitable rules and regulations, to be settled by the Secretary of the Treasury, the Attorney-General, and Commissioner conjointly, consistently with such principles, all cases of suspended entries now existing in said Land Office, and to adjudge in what cases patents shall issue upon the same.

The act approved March 3, 1849, entitled "An act to establish the Home Department and to provide for the Treasury Department an Assistant Secretary of the Treasury and a Commissioner of the Customs," in section 3, provided:

That the Secretary of the Interior shall perform all the duties in relation to the General Land-Office, of supervision and appeal, now discharged by the Secretary of the Treasury.

By act of June 26, 1856, the act of August 3, 1846, was revived and enlarged.

The Secretary of the Interior has, by authority of said act of March 3, 1849, performed the duties originally delegated by act of August 3, 1846, to the Secretary of the Treasury.

By the Revised Statutes of the United States, page 74, chapter 2, section 441, "the Secretary of the Interior is charged with the supervision of public business relating to the public lands."

Section 2450, page 452, Revised Statutes, re-enacts the act of August 3, 1846, so far as constituting the Secretary of the Treasury a member of said board.

In view of these several acts, and the fact that the duties thus delegated to the Secretary of the Treasury are of the class over which the Secretary of the Interior is given jurisdiction, and not of the class pertaining to the general business of the Treasury Department, it is thought the naming of the Secretary of the Treasury in said section 2450, Revised Statutes, was an inadvertence occurring through a reference to said act of August 3, 1846, and the matter is suggested that the attention of Congress may be drawn to the subject.

TOWN-SITES.

The town-site laws as they now stand, under the uniform construction they have received, confine the town to a single entry.

Whenever a town is founded on the public lands, the business exigencies of its inhabitants prompt them to the exercise of the greatest diligence in obtaining title by patent for the quantity of land to which they may be entitled by reason of the number of inhabitants included in the municipality. It frequently results that by the growth of their numbers they would become, within a brief period, (were it not that they had exhausted their right of entry,) entitled to take the largest area named in the law.

Sometimes the land desirable for entry is within the limits of their incorporation, and hence not subject to private entry, pre-emption, or homestead; and yet, even so situated and covered by dwellings, business-houses, and other town improvements, the occupants have no legal method by which they can obtain title through the same municipality. In one case a *new* municipality was created contiguous to that which had already made an entry, and in that manner the necessary land was obtained. The legitimate occupation of the public lands for municipal purposes is highly conducive to the public interests, and should be encouraged by appropriate legislation. I am of the opinion that municipalities should be allowed additional entries to a certain maximum as their population may entitle them. The areas named in the act of March 2, 1867, (Revised Statutes, section 2389,) for certain numbers of inhabitants, are considered sufficiently large.

Of lands included within the limits of incorporated towns.—The second subdivision of section 2258 of the Revised Statutes of the United States excepts from the right of pre-emption, "Lands included within the limits of any incorporated town, or selected as the site of a city or town." By law, only such lands as are subject to pre-emption may be taken under the homestead laws.

The several questions arising under this provision of the law to which attention is now asked were in some of their phases considered and determined in the case of *Root* v. *Shields*, 1st Woolworth, Circuit Ct. Reports, page 342, (Mr. Justice Miller delivering the opinion of the court.) I quote from that opinion so much as is necessary to show the conclusion reached by the court:

1. The city was incorporated, and these lands included within the corporate limits, in February, 1857.

2. Shields had no pre-emption claim to them prior to September, 1857.

3. The act granting to him such right, if any he had, provides that a party of the character therein described may pre-empt any portion of the public lands, except such as are included within the limits of an incorporated city. It does not need a single word to show that the law, on its face, does not authorize a pre-emption entry of the lands here in question. But it is insisted, on behalf of the defendants, that this exception in the law is inoperative here. One reason alleged is, that the mischiefs of such a provision are so serious that Congress could not have intended the effects which would follow. It is said that the State or territorial legislature, in which rests the authority of incorporating cities, might, by unduly extending their limits, exclude large bodies of land fit only for agricultural purposes from the beneficent operations of the pre-emption act, and defeat the object of Congress.

We do not stop to repeat what has been said a great many times of the duty of the court, when applying to a case a provision of a statute, the terms of which are clear and precise, and when urged to nullify it by considerations of mischief growing out of it. Here we think the mischiefs are imaginary rather than real. If the local legislature were so unwise as to endeavor to defeat the purposes of a law enacted for the benefit of its constituents, Congress could readily, and certainly would immediately, remedy the evil. And it is not conceivable that the local legislature would ever attempt any such thing.

The pre-emption law was enacted for the benefit of the settlers in the new States and Territories. It offers to that adventurous and worthy class of citizens the advantages of selecting and securing in advance of the speculator, the more desirable tracts in the new region. And the uniform policy of the Land Department is to retain the public lands in such a situation for a long time, in order to give those who are willing to encounter the hardships and dangers of frontier life, an opportunity to make selections and to settle upon them, and make payment for them at the minimum price before any portion of such lands are offered to purchasers in general. Accordingly such settlers constitute almost the whole body of citizens who settle in such regions. It is not conceivable that they would deliberately devise a measure which would defeat an enactment by which valuable privileges are secured to themselves, and by which the region of country in which they live would be populated and improved. Precisely this argument was urged in the case of Gilman rs. Philadelphia, 3 Wallace, 713, 731. It was held untenable there, for the reasons indicated above.

It is insisted that the clause in the law containing this exception is repealed by the

provision in the act organizing the Territory, that its legislature should not have authority to interfere with the primary disposal of the soil. It is said, that if the territorial legislature can, by incorporating a city, withdraw the lands included within its limits from the privileges of pre-emption, it may and it does thereby interfere with the primary disposal of the soil. This argument is specious rather than sound. If the provision of the organic act has the effect claimed, it is because it repeals the provision of the pre-emption law by implication. Between these two provisions there is no such repugnance that they cannot both stand. So that we cannot imply a repeal of the former by the latter. (United States *vs.* 10,000 cigars, *ante.*)

This provision in the act is the same as is found in most of the acts admitting new States into the Union. It is intended to withdraw from the local legislatures some special matter of general concernment, and indicates a settled policy in respect thereof.

In 1802, in the act admitting Louisiana, the words used were, "They," that is the people of the new State, "forever disclaim all right or title to the waste or unappropriated lands lying within the said Territory; and the same shall be and remain at the sole and entire disposition of the United States." (2 Statutes at Large, 642.) And the very phrase here employed by Congress appears in the act for the admission of Michigan, passed on the 15th of June, 1836, (5 Statutes at Large, 59,) and will be found in all similar acts since passed. Having its origin in some reason of general application, it has been felt as a necessary, and adopted as an approved, provision in the legislation of Congress.

One or two considerations will disclose this. To incorporate a city located on the public lands, however contracted its limits, is to withdraw from the operation of the pre-emption law lands included within them. If including public lands within the limits of an incorporated city is an interference with the primary disposal of the soil, then the new States cannot pass an act incorporating a city located on the public lands. But this power in the States was never denied. It has always been exercised by them exclusively of the Federal Government. Indeed, the legislation of Congress concedes the power. So it cannot be that incorporating a city on the public lands interferes with the primary disposal of the soil, even though it has the effect to withdraw the lands within its limits from the operation of the pre-emption law.

I have thus far spoken of the power of States, and am reminded that the charter of Omaha was enacted by a Territory. But we have already seen that the provision has its place in acts admitting States, as well as in acts organizing Territories; and that it is universally used on account of a general policy. So the argument in the one case is of equal force in the other. An act incorporating a city which is located on the public lands does not, by its own force, withdraw lands from pre-emption. That effect is produced by the congressional provision, and is remote, indirect, and only consequential.

These obvious considerations show very clearly that when Congress provided that the Territory should not interfere with the primary disposal of the soil, it did not intend to deny the authority to incorporate a city on the public lands. But this exception in the pre-emption law was not inserted with any view whatever to the extent of the corporate limits of a city, whether they should be reasonable or unreasonable. It was assumed that there was a class of lands which the local authorities would regard as more desirable for town occupation than for agricultural use. Without any inquiry as to the correctness of the opinion on that subject of those who were on the ground, and without convenient means of answering such an inquiry, Congress deemed the short way the best way—to exclude them all from the operation of the act by a general rule. And when, with such a provision of statute before it, and with such obvious reasons for enacting it, Congress proceeded to organize the Territory with the clause which is before us, it is unreasonable to suppose that it intended to repeal or modify the former rule.

The clause in the organic act was intended to forbid the territorial legislature passing any law to dispose of the public lands as if on its own authority, or intermeddling with the mode by which the general Government should dispose of them, or assuming any authority or jurisdiction in respect of that business. It was not intended to deny authority to pass a law which the Territory alone could intelligently enact.

Clearly the position of the defendants on this ground is untenable.

But we are met by still another reason against giving effect to the exception in the pre-emption law. It is, that the act of May 23, 1844, (5 Statutes at Large, 657,) restricts the corporate limits of a city to three hundred and twenty acres. All that that act provides, so far as the matter here in hand is concerned, is that any portion of the public land actually occupied as a town-site, may, to the extent of three hundred and twenty acres, be by the corporate authorities entered at the proper land office, and at the minimum price, in trust for the occupants. Prior to the passage of that act there was no mode provided for the occupants of such towns acquiring their titles, except at public sales.

The public sales of lands are often delayed long after a large section of territory has been opened for settlement. This is in order to enable settlers to enjoy the preference

in acquiring the more valuable tracts. And these sales are made in parcels of not less than forty acres each, and therefore do not afford an appropriate means to claimants of small lots for acquiring title thereto. Congress accordingly provided this mode of relief to such parties, expressly restricting the advantages which it granted to lands actually occupied, and to three hundred and twenty acres. The *status* of the remaining lands within the corporate limits was untouched. They could not be entered under this act, nor could they any more after than before the passage of it be pre-empted by an individual. The title to them could only be acquired at public sale.

No one of the reasons urged on behalf of the defendants against giving effect here to the clear and express provision of the law, that lands within the limits of an incorporated city should not be subject to pre-emption, are tenable. But if we look to the policy of the provision, we are led to the same conclusion.

Whenever a town springs up upon the public lands, adjoining lands appreciate in value. The reasons are obvious, and the fact is well known. So, too, when a railroad is built through a section of country, the same result follows. So, too, in respect of lands which have been reserved for the use of an Indian tribe, when the Indian title is extinguished, the same may be said. While such lands are held as a reserve, population flows up to their boundaries and is there staid; it of course constantly grows more and more dense, so that when the reserve is vacated, the lands have increased in value, and are always eagerly sought after. The other classes of lands mentioned in the exception, as for instance those on which are situated any known salines or mines, have some intrinsic value above others.

Now all these classes of lands are excepted from the operation of the act, and for the one common and obvious reason, that being of special value, the Government desires to retain the advantage of their appreciation, and is unwilling that any individual, because of a priority of settlement, which certainly can be of but brief duration, should, to the exclusion of others equally meritorious, reap benefits which he did not sow.

This is as true of lands within the limits of an incorporated city, as of any other of the classes mentioned in the exception. And it is no answer to this view to suggest that lands thus excluded from pre-emption are not occupied for a town. They are included within its limits by the local legislature, because likely to be required for such occupancy. And it is this fact, and their proximity to the town, which gives them special value. This very circumstance of their situation brings them into the classes of lands mentioned.

The lands were not, at the time Shields first asserted a pre-emption claim thereto, subject to entry under the act, and the entry which he made was illegal and void.

* * * * * * *

It is further insisted, on behalf of the defendants, that they are *bona-fide* purchasers, and that they, as such, are entitled to the protection of the court. I think it pretty clear that some at least of these defendants purchased and paid their money without any knowledge in fact of any defect in the title. Yet they are not *bona-fide* purchasers, for a valuable consideration, without notice, in the sense in which the terms are employed in courts of equity. And this is for several reasons.

They all purchased before the issue of the patent. The more meritorious purchased after the entry had been assailed, and decided against by the Land-Office. But this is a circumstance not material to this consideration. Until the issue of the patent, the legal title remained in the United States. Had his entry been valid, Shields would have taken only an equity. His grantees took only an equity. They did not acquire the legal title. And in order to establish in himself the character of a *bona-fide* purchaser, so as to be entitled to the protection of chancery, a party must show that, in his purchase and by the conveyance to him, he acquired the legal title. If he have but an equity, it is overreached by the better equity of his adversary.

Besides, these defendants were bound to know the law. They were bound to know that these lands were within the limits of the city; and that lands within the limits of a city cannot be pre-empted. Knowing these facts, they knew that Shields's entry was void. They did not purchase without notice.

Again, the defect in the title was a legal defect; it was a radical defect. It was as if no entry had ever been made. By it Shields did not take even an equity. After he had gone through the process of making the entry, after he received the patent certificate, Shields had no more right, or title, or interest in the land than he had before. And as he had none, he could convey no interest in the land. By the deed which he made, and by the successive deeds which they received, his grantees took no more than he had, which was nothing at all.

In order to the maintenance of this defense, there must subsist an interest which the law approves and will support, and we have shown in this opinion that that never existed.

There must be a decree according to the prayer of the bill.

Decree accordingly.

It will thus be seen that the view always held by this Office has been fully sanctioned by a court whose decisions are entitled to great respect;

and it may now be considered as the settled rule that public lands found within the incorporated limits of any city or town are not subject to sale or appropriation under the provisions of the pre-emption or homestead laws; that when patents to lands of this class have by inadvertence issued, no valid title was in fact conveyed, and it seems that the original infirmity of title follows the land even in the hands of a *bone fide* purchaser from the original patentee. Coupled with these conclusions of law is also suggested the duty devolving upon this Office to see to it that the interests of the United States are duly cared for by an offering of the included tracts at public sale.

The legal status of this class of lands being thus clearly understood, and the resulting duty of this Office in the premises, the difficulties in the way of a proper execution of the law are to be noted. They are chiefly these: The acts of incorporation emanate from State or territorial legislatures. There is usually nothing in their terms to indicate that public lands are included within the proposed municipality, nor is there provided any means whatever for bringing to the notice of this Office, or to that of the local land office, or surveyor-general, either the fact of incorporation or the claimed limits of its authority. Lands, therefore, actually within the prohibition against pre-emption and homestead entry remain upon the books of the local offices and of this Office without identification, and as a rule pass to pre-emptors without question. I see no means of effectually remedying this evil under the present state of the law. It might, perhaps, be measurably remedied by an enactment making it the duty of the proper municipal officers of any town located upon the public lands, or whose incorporated limits are so extended as to include public lands, to file in the office of the surveyor-general of the district a diagram showing the lines of such incorporation with reference to the lines of the public surveys. An amendment of the town-site laws requiring applicants for town patents to embrace in their application a declaration (with diagram) of the limits of the incorporation, and a further requirement making it obligatory upon the secretary of each Territory to furnish, for the use of the United States, to the surveyor-general of the Territory, a copy of any act of the legislature thereof incorporating any city or town, would tend to a correction of the evils under consideration. No valid objection could be urged against such a requirement; nor is it perceived that any real objection exists, either against the power of Congress or the sound policy of an enactment which, within the limits of the Territories of the United States, should make it obligatory upon town authorities to give prompt notice of any assertion of corporate powers, or changes of their lines, whenever they affect the public lands. These suggestions are made with a view of obviating, as far as possible, difficulties in the future. The situation of affairs growing out of the facts already stated as to entries already passed to patent requires some solution. That a large number of entries so made, and consequently illegal, have been passed to patent under the provisions of the homestead and pre-emption laws is undoubtedly true.

In some of these cases the parties probably acted in good faith, having no personal knowledge of the fact that the lands claimed are within incorporated limits, and, though chargeable with knowledge of the law, in other cases, it may be presumed that in fact they were unaware that the inclusion of their tracts excepted them from the form of entry under which they proceeded. Cases have, however, been brought to the attention of this Office, where it is fair to presume that the party was well aware of both fact and law, and proceeded to the unlawful acquisition

of valuable tracts—sometimes in collusion with town authorities—for speculative purposes. In such cases no relief ought to be afforded by legislation. I am of the opinion, however, that when good faith can be shown, it would be proper and just, as well as for the general good, that legislation be had for the cure of the infirmities of title alluded to.

Territory of Utah—Extent of municipalities.—In this regard, a peculiar condition of affairs is found to exist in the Territory of Utah. For purposes not readily suggesting themselves to the uninformed, it appears that for many years past it has been the practice of the territorial authorities of Utah to assert control in various ways over the whole accessible or possibly valuable portions of the Territory. This tendency to the assertion of undue and indefensible authority over the property of the United States is well illustrated by the practice found to prevail of including vast areas of the public lands within the limits of incorporated cities and towns. That such inclusion is not dictated by the legitimate requirements of the municipality which asserts its power over them, and that the extent of the asserted limits is not in any manner referable to the number of inhabitants making up the enumeration, will readily appear by a recital of facts as to some of the towns within that Territory.

The city of Salt Lake was found by the last United States census to contain a population of 12,854 souls. The town-site entry, as authorized by the act of July 1, 1870, embraced 5,730.45 acres, but the lines of her incorporation include forty-nine square miles, or upward of 31,000 acres of land. The town of Cedar City had, in 1870, a population of 517 persons, with an incorporated area of thirty-six square miles; the town of Beaver, with a population of 1,207 persons, also asserts corporate authority over thirty-six square miles; Fillmore, with a population of 905, has also a corporation limit of thirty-six square miles; Deseret, with 150 persons only in her enumeration, has a like limit of thirty-six square miles, while Pleasant Grove, with 930, and Moroni, with 633 persons, each includes forty square miles of territory within its limits. Except in the case of Salt Lake City, upon whose corporate limits a report has recently been made by the surveyor-general of Utah Territory, the areas above given are estimates; they are, however, believed to be approximately correct, and sufficiently illustrate the state of things prevailing in that Territory. It is to be borne in mind that these are but a few of the large number of municipalities found within the Territory, all organized on the same general plan.

I find in a memorial heretofore presented to Congress by members of the legal profession residing in the Territory of Utah, that this, among other existing evils, is referred to, and the extent to which it has been carried is illustrated by the following language:

> To show how comprehensive the plan is, it may be mentioned that in going south the traveler enters the corporate limits of Lehi when he enters Utah County, and from that into American Fork, and so into Pleasant Grove, Provo, Springville, Spanish Fork, Payson, &c., passing out of one only to enter another, so that through the length of the county he is within corporate limits, though for much of the distance he is miles from any habitation; and for the entire distance of three or four hundred miles south, to Saint George, as a general rule, he is within the limits of a corporation when he is not on the desert.

Presuming, as may be done, that the towns and villages mark the centers of the territorial area found desirable for settlement, and it follows that many of the best and most accessible lands of Utah have been by these means withdrawn from homestead and pre-emption settlement. True, many tracts have in fact been entered and patented, and many more are now occupied, and will hereafter be claimed under the pre-emption and homestead laws. Of those patented a proper definition

of boundaries will undoubtedly show a very large acreage to be within the excepted limits. An examination of entries within the recently-defined boundaries of Salt Lake City discloses the fact that upwards of ten thousand acres of patented land are found to be in this category—in other words, claimed and held under invalid patents, and therefore subject to be defeated whenever the United States may see fit to authorize an action to be brought for that end.

It should be mentioned that, incidental to this state of things, gross abuses, which cry aloud for remedy, are made possible.

The fact that so large areas are included within undefined boundaries, while it has not prevented the acquisition of the form of title by such persons as might be acceptable to the ruling element of the municipalities—the true status of the tract in such cases not being disclosed to the local officers or to this Office—yet, in cases where the settler might not for any reason be deemed a desirable acquisition, the state of facts presents a ready weapon for defeating both his entry and settlement. With a view to the remedy of the particular evils referred to, and which exist alone in Utah, it is recommended that the provision of the pre-emption law relating to lands included within the limits of any incorporated town be so amended as to restrict their operation as withdrawals within reasonable limits. I am, further, of the opinion, and so recommend, that the proclamation of the President be issued at an early day offering for sale public lands found to be contiguous to towns and cities. The law, as has been seen, contemplates such a disposal. In no other way can valid title be obtained. It is due to the inhabitants of these municipalities that the lands immediately surrounding them be put in condition for settlement and improvement.

UNDELIVERED COMPLETED PATENTS.

One branch of the business of this Office has especially attracted my attention, viz, the delivery of completed patents. It has been, and is, the practice of this Office to transmit patents, as rapidly as completed, to the various local offices for delivery on surrender of the duplicate receipts or certificates; and on the discontinuance of a local office, all undelivered patents remaining in its files are returned to this Office, where they are carefully assorted and numerically filed.

From a very early day in the history of the public land system, settlers and purchasers seem to have been strangely indifferent in the matter of securing possession of the Government patents for their lands, and in hundreds of thousands of instances the foundation title, as exhibited by local records, to lands purchased of the Government—some of them of vast present value—is merely the duplicate receipt for the purchase-money issued by the receiver of a district land office. I am led to believe that this indifference has arisen chiefly from ignorance on the part of purchasers of the fact that a Government patent, signed, sealed, and *delivered*, constitutes *the only available positive evidence* of the transfer of title from the United States to the individual. But, be the cause what it may, on entering upon my official duties here I was confronted by the fact that there are remaining in the files of this and the various local offices between one and two millions of uncalled-for patents, covering, probably, not less than one hundred and fifty millions (150,000,000) of acres, no small proportion of which being lands purchased of the Government more than half a century ago, and lying in the States of Ohio, Indiana, and Illinois.

The very grave importance of placing these highest evidences of the

original derivation of title in the hands of the proper parties, thus enabling them to securely fortify their tenure, has occupied my earnest attention, and within a few months past I have caused a plan to be put into operation which it is believed will, in a great measure, accomplish the desired object.

Under the plan referred to, it is proposed to carefully prepare and transmit to the recording officer of each county of the public land States a list of all undelivered patents, (with description of land and name of patentee,) embracing lands situated in such county, together with instructions as to what is required to procure patents from this Office, and a supply of the necessary blank forms. Those lists will be accompanied by a request that the recording officer use such methods as may be at his disposal to bring to the attention of the present holders of the lands in question the fact of the existence of these patents in the possession of the Government, and also the easy and inexpensive means required to obtain them. In addition to this, placards will be prepared calling the attention of the public to the fact that such lists are in the hands of the recording officer for free inspection. These placards will be posted in the several post offices of the respective counties. The preparation of the lists for the States of Ohio and Indiana is now well advanced, and within a few weeks I shall be enabled to test the efficacy of the proposed plan.

REORGANIZATION OF THE CLERICAL FORCE.

In my last annual report, and in those of my immediate predecessor for the years 1871, 1872, and 1873, the necessity for a thorough reorganization and increase of the clerical force of the General Land Office was urged as indispensable to the proper transaction of its business.

These representations resulted in provision being made by the last Congress for such increase in the number of clerks as has enabled me to put the business of the Office in better condition than it has heretofore been for the past twenty years.

The current work is now dispatched with as great rapidity as is consistent with accuracy and safety to public and private interests. There remains, however, large accumulations of old suspended cases, which, from their nature, are difficult and slow of adjustment. They require the attention of the most competent and experienced of the Office force. It is to be regretted that the final adjustment of these cases must be still longer delayed, owing to the want of a sufficient number of skilled men to take charge of their final disposition. I deem it my duty to again urge that steps be taken to bring to the notice of Congres the necessity of the reorganization of the clerical force heretofore referred to. I have no hesitation in declaring it to be my judgment that, considering the large body of laws to be administered, the manifold forms of proofs to be examined, the watchfulness against fraud constantly required, the immensity of the trust imposed, and the special skill and learning required in the settlement of the foundations, as is here done, of the titles of the whole estate of the people in lands derived from the Government, places this Bureau in a position of importance second to none other, and entitles it to an organization commensurate with the interests it is intended to subserve. It will be found, however, on comparison, that it is still restricted within the meagre wants of its early organization, and that the salaries of its employés are among the lowest provided for the public service.

OFFICE-ROOM.

The question of room for the use of this Bureau has become an important one. There is now urgent need for larger space for the proper, safe, and economical transaction of its business and the preservation of its records. The space available for desks is now overcrowded; the file rooms are filled to their utmost capacity; the meagre space now available for desks and files has been preserved by thrusting out into the public halls of the Department building some of the most important records of the office; should they be returned to the proper rooms, where they are in hourly demand, and where upon every consideration of their great value and importance they ought, for safety, to be, there would be left no working-space whatever. The records thus insecurely placed are mainly the "tract-books." They are the only indexes found in the General Land Office by which its varied transactions can be traced, and are in themselves, in a large sense, the original evidences of title to an estate found by the last census to be valued at $4,749,409,940.

The relief which this system of storage has heretofore given has reached its utmost limit; space in the halls available for the purpose is now exhausted; and the daily accumulation of letters, returns, and records must henceforward trench on the now-too-limited working-room, unless relief can be found by the assignment of additional rooms within the Department building.

These records are of too great importance to be deposited in buildings outside the Department, unless constructed specially for such purpose with a view to safety from fire, and even as now arranged in the Department they are insecure from mutilation.

From a careful examination of the "Consolidated Tables of the Aqueous Precipitation in the United States," as "collected by the Smithsonian Institution, and discussed, under direction of Joseph Henry, Secretary, by Charles A. Schott, Assistant United States Coast Survey; member Am. Phil. Societies of Philadelphia and Washington, and of Academy of Sciences of Catania, Sicily," I find that the average amount of precipitation in the fertile belt east of the one-hundredth meridian of longitude is thirty-nine inches per annum.

For the purposes of illustrating the views expressed in the foregoing synopsis of my annual report, under the head of "Lands west of the one-hundredth meridian," the following tables, showing the aqueous precipitation in that region for the four seasons of the year, from 1857 to 1867, are annexed.

For the data upon which table No. 2 has been constructed, I am indebted for access to the unpublished record of observations and results to the courtesy of Prof. Charles A. Schott, Assistant United States Coast Survey, &c.

No. 1.—*Table showing the mean amount of precipitation, in rain and melted snow, for each season of the year, west of the one hundredth meridian of longitude west from Greenwich, and east of the Cascade range and Sierra Nevada Mountains. Collected by the Smithsonian Institution.* (*See "Smithsonian Contributions to Knowledge, No. 222."*)

Name of station.	Latitude.	Longitude.	Altitude, in feet.	Precipitation, in inches.					Extent of series	
				Spring.	Summer.	Autumn.	Winter.	Mean amount during the year.	Years.	Months.
DAKOTA.										
Fort Pierre	44 23	100 12	1,456	4.28	3.32	3.76	2.15	13.51	1	10
WYOMING.										
Fort Laramie	42 12	104 31	4,472	5.64	4.90	2.98	1.64	15.16	12	6
COLORADO.										
Fort Massachusetts	37 32	105 23	8,365	2.95	5.56	6.28	2.27	17.06	5	1
Fort Garland	37 32	105 40	8,365	1.00	3.23	1.33	0.45	6.11	6	4
Fort Lyon	38 08	102 50	4,000	7.09	4.30	0.11	0.59	12.09	1	0
MONTANA.										
Helena City	46 37	112 00	4,150	8.26	4.40	4.91	4.57	22.14	1	0
Fort C. F. Smith	45 20	107 56	.....	3.56	1.74	5.24	2.59	13.13	1	0
NEW MEXICO.										
Fort Craig	33 36	107 00	4,576	0.61	6.11	3.94	1.01	11.67	9	7
Fort Fillmore	32 14	106 42	3,927	0.48	4.16	3.02	0.76	8.42	8	3
Fort Webster	32 43	108 10	6,350	3.44	9.40	5.03	1.59	19.46	1	11
Fort Thorn	32 40	107 09	4,500	0.84	6.65	5.27	1.87	14.63	4	11
Fort Conrad	33 47	106 48	4,576	0.51	3.24	2.53	0.48	6.76	3	9
Socorro	34 05	106 50	4,580	1.10	3.23	3.39	1.14	7.86	1	9
Albuquerque	35 06	106 38	5,032	0.83	4.35	2.04	0.90	8.12	12	2
Cibolleta	35 15	107 20	6,200	1.23	1.91	5.87	3.04	12.05	2	1
Fort Marcy	35 41	106 02	6,846	2.27	7.60	4.12	2.66	16.65	12	6
Fort Stanton	33 29	105 38	.....	1.81	10.81	4.89	2.84	20.35	5	0
Fort Union	35 54	104 57	6,670	1.79	13.96	4.73	1.40	21.88	11	5
Camp Burgwin	36 26	105 26	.....	1.57	2.92	2.42	1.74	8.65	5	9
Fort Sumner	34 20	104 00	.....	1.35	8.81	3.38	2.09	15.63	3	1
Fort Wingate	35 30	107 45	.....	0.71	8.25	2.99	2.00	13.95	2	5
Fort Selden	32 23	106 55	.....	0.61	.....	2.50	0.90	.....	1	4
UTAH.										
Great Salt Lake City	40 46	111 54	4,260	5.20	5.04	5.92	7.69	23.85	5	8
Fort Bridger	41 20	110 23	6,656	2.12	1.59	1.52	0.89	6.12	6	3
Camp Floyd	40 13	112 08	4,860	1.75	1.94	2.58	1.07	7.34	2	6
Camp Douglas	40 47	111 52	4,800	5.56	2.04	4.49	8.48	20.57	3	3
Tonnquint	37 11	113 50	.....	1.16	1.49	2.39	3.34	8.38	2	6
ARIZONA.										
Fort Defiance	35 43	109 10	6,500	2.03	5.91	3.72	2.55	14.21	8	5
Fort Buchanan	31 40	110 55	5,330	1.13	13.48	4.60	3.90	23.11	2	5
Fort Mojave	35 06	114 35	604	0.30	0.08	0.95	1.18	2.51	2	2
Fort Whipple	34 33	112 20	5,700	9.22	5.08	4.12	4.13	22.56	1	4
Camp Goodwin	32 52	109 51	.....	3.21	7.20	10.52	11.85	32.78	1	6
Camp McDowell	33 46	111 36	.....	2.14	4.15	1.93	3.94	12.16	1	4
Camp Wallen	31 31	110 11	.....	0.60	9.16	0.20	7.80	17.76	1	0

IDAHO.

Name of station.	Latitude.	Longitude.	Altitude, in feet.	Precipitation, in inches.					Extent of series.	
				Spring.	Summer.	Autumn.	Winter.	Mean amount during the year.	Years.	Months.
	° ′	° ′								
Fort Boisé	43 40	116 00	.....	4.14	1.17	2.27	5.70	13.28	2	5
Fort Lapwai	46 18	116 54	.....	3.54	3.51	4.14	5.81	17.00	2	11

OREGON.

Fort Dalles	45 33	120 50	350	3.65	1.16	5.82	11.11	21.74	12	7

WASHINGTON TERRITORY.

Fort Walla-Walla	46 03	118 20	.....	4.69	2.08	4.98	7.73	19.48	8	7
Fort Bellingham	48 45	122 30	88	7.19	2.82	7.82	11.84	29.67	12	8
Fort Simcoe	46 30	120 40	.....	1.84	0.85	1.80	6.12	10.61	2	6
Fort Colville	48 42	118 02	1,963	2.05	3.02	1.98	2.78	9.83	4	4

No. 2.—*Table showing the results of rain-fall for the summer and winter seasons, and for the year, taken from and embracing observations referred to in Table No.* 1, *combined with those extracted from the registers of the Surgeon-General's Office, to the end of November*, 1871; *also showing the precipitation for the years* 1872, 1873, *and* 1874, *in certain localities.*

IDAHO.

Name of station.	Latitude.	Longitude.	Altitude, in feet.	Rain-fall, in inches.			Extent of series.		Rain-fall, in inches, during the years—		
				Summer.	Winter.	Year.	Years.	Months.	1872.	1873.	1874.
	° ′	° ′									
Fort Boisé	43 40	116 00	.....	1.20	5.30	14.13	6	4	17.93	17.74	14.97
Fort Hall, (new)	43 04	112 27	.....	0.55	.....	.....	0	8	.....	.....	.....
Fort Lapwai	46 18	116 54	.....	2.76	5.11	15.74	6	7	16.11	10.33	13.64

WYOMING.

Fort Bridger	41 20	110 23	6,656	1.62	1.20	7.16	8	10	10.47	10.83	13.65
Fort D. A. Russell	41 10	104 51	.....	2.03	1.69	11.60	2	0	15.34	15.43	15.71
Fort Fetterman	42 45	105 37	.....	3.89	1.29	11.60	2	8	19.84	18.21	.....
Fort F. Steele	41 47	106 57	.....	5.49	6.06	23.96	2	4	11.44	6.58	7.18
Fort Sanders	41 13	105 38	7,161	2.61	1.05	9.12	3	8	17.77	15.14	11.60
Fort P. Kearney	44 30	106 50	6,000	11.53	0.51	29.48	1	5	.....	.....	.....
Fort Laramie	42 12	104 31	4,472	4.65	1.52	14.33	15	1	.....	18.35	12.20

COLORADO.

Fort Massachusetts	37 32	105 23	8,365	5.56	2.27	17.23	5	1	.....	.....	.....
Fort Garland	37 32	105 40	8,365	5.74	2.00	12.98	10	0	42.34	7.75	11.19
Fort Lyon	38 08	102 50	4,000	5.00	0.40	11.54	4	8	16.97	11.58	(14.58)
Fort Morgan	40 15	103 46	4,500	1.85	1.04	.....	1	0	.....	.....	.....
Fort Sedgwick	40 58	102 23	3,600	3.47	3.23	15.42	2	1	.....	.....	.....
Fort Reynolds	38 15	104 12	.....	3.62	1.72	13.25	2	8	.....	.....	.....

DAKOTA.

Fort Stevenson	47 36	101 10	.....	6.10	1.63	14.93	3	1	12.49	9.83	7.37
Fort Sully	44 50	100 35	.....	7.03	1.59	19.00	3	1	17.78	12.59	15.80
Fort Rice	46 35	100 33	.....	4.00	0.57	10 66	2	11	13.76	12.55	11.74
Fort Buford	48 01	103 58	1,900	3.58	1.13	9.01	4	8	17.80	23.02	7.62
Fort Pierre	44 23	100 20	1,456	3.34	2.15	13.53	1	10	.....	.....	.....

Name of station.	Latitude.	Longitude.	Altitude, in feet.	Rain-fall, in inches.			Extent of series.		Rain-fall, in inches, during the years—		
				Summer.	Winter.	Year.	Years.	Months.	1872.	1873.	1874.
ARIZONA.											
	° ′	° ′									
Fort Defiance	35 43	109 10	.....	5.91	2.55	14.21	8	5	.....	.....	.....
Fort Buchanan	31 40	110 35	5,330	13.48	3.90	23.11	2	5	.....	.....	.....
Camp Grant	32 54	110 40	.....	7.17	2.68	16.16	3	8	.....	.....	.....
Camp Lowell, Tucson	32 13	110 53	.....	5.48	2.29	10.33	4	4	.....	.....	.....
Camp McPherson	34 45	112 18	.....	9.79	9.48	24.63	1	6	.....	.....	.....
Camp Bowie	32 10	109 50	.....	9.29	3.29	15.58	3	9	.....	.....	.....
Camp Crittenden	31 43	110 35	.....	11.62	3.38	17.89	3	7	.....	9.63	18.73
Camp Date Creek	34 18	112 40	3,726	6.73	3.35	13.84	3	1	.....	.....	.....
Camp Goodwin	32 52	109 51	.....	10.52	7.04	26.56	3	11	.....	.....	.....
Camp McDowell	33 46	111 36	.....	3.96	3.55	10.22	4	11	20.01	8.13	16.84
Camp Wallen	31 31	110 11	.....	10.25	6.95	18.90	2	8	.....	.....	.....
Camp Willow Grove	35 34	113 27	.....	5.45	1.71	9.00	1	7	.....	.....	.....
Camp Verde	34 32	111 54	.....	4.47	1.21	8.93	3	0	.....	.....	.....
Camp Reno	33 56	111 20	.....	.....	5.92	.....	1	0	.....	.....	.....
Camp Colorado	34 08	114 18	.....	0.28	0.42	1.85	2	0	.....	.....	.....
Camp Huaipai	34 14	114 00	.....	8.78	1.10	16.59	1	4	.....	.....	.....
Fort Whipple	34 33	112 20	5,700	7.86	4.69	19.87	4	7	.....	.....	.....
Camp Mojave	35 06	114 35	604	0.75	0.94	3.12	6	0	.....	.....	.....
MONTANA.											
Helena City	46 37	112 00	4,150	2.95	3.44	16.98	....	....	7.27	6.90	4.24
Camp Cook	47 48	109 38	.....	3.93	1.91	10.93	....	....	.....	.....	.....
Fort C. F. Smith	45 20	107 56	.....	1.85	2.46	11.95	....	....	.....	.....	.....
Fort Shaw	47 30	111 42	6,000	2.74	1.02	7.40	....	....	.....	.....	.....
Fort Ellis	45 32	111 12	4,800	2.49	3.03	14.39	....	....	.....	.....	19.29
Fort Benton	47 50	110 39	2,730	1.63	1.64	7.66	....	....	15.31	12.30	10.40
NEVADA.											
Fort Churchill	39 17	119 19	4,284	1.51	3.07	7.43	....	....	6.77	.....	.....
Fort Ruby	40 01	115 35	5,922	2.80	4.23	15.61	....	....	.....	.....	.....
Camp McGarry	41 40	119 00	6,500	0.78	7.69	22.45	....	....	.....	.....	.....
Camp McDermit	41 58	117 40	4,700	0.92	3.48	8.91	....	....	4.61	.....	.....
Camp Winfield Scott	41 34	117 30	.....	1.13	10.43	17.33	....	....	.....	.....	.....
Camp Halleck	40 43	115 30	5,600	1.45	4.08	11.75	....	....	.....	.....	.....
UTAH.											
Great Salt Lake City	40 46	111 54	4,260	5.44	7.85	24.10	....	....	.....	.....	.....
Camp Floyd	40 13	112 08	4,860	1.94	1.07	7.34	....	....	.....	.....	.....
Saint George	37 11	113 50	.....	1.32	3.34	8.26	....	....	.....	.....	.....
Camp Douglas	40 07	111 52	4,800	2.03	7.07	19.98	....	....	.....	.....	.....
WASHINGTON TERRITORY.											
Fort Colville	48 42	118 02	1,963	3.20	4.46	14.20	....	....	.....	.....	.....
Fort Walla-Walla	46 03	118 20	.....	2.07	7.62	19.36	....	....	.....	.....	.....
Fort Bellingham	48 45	122 30	88	2.82	11.84	29.65	....	....	.....	.....	.....
Fort Simcoe	46 30	120 40	.....	0.85	6.12	10.61	....	....	.....	.....	.....
NEW MEXICO.											
Fort Cummings	32 32	107 40	.....	.....	.....	.....	....	....	13.52	.....	.....
Fort Lowell	36 39	106 40	.....	.....	.....	.....	....	....	13.58	7.42	.....
Fort Bayard	32 46	108 30	4,450	.....	.....	.....	....	....	13.61	22.18	20.78
Fort McRae	33 18	107 03	4,500	.....	.....	.....	....	....	.....	.....	10.82
Fort Wingate	35 30	107 45	.....	.....	.....	.....	....	....	20.76	25.06	7.55
Fort Craig	33 35	107 00	4,576	.....	.....	.....	....	....	.....	5.85	9.08
Fort Huron	35 54	104 57	6,670	.....	.....	.....	....	....	.....	.....	17.08
Fort Selden	32 23	106 55	.....	.....	.....	.....	....	....	6.33	3.49	6.13
NEBRASKA.											
Fort McPherson	41 00	100 30	.....	.....	.....	.....	....	....	16.07	18.86	17.16
Sidney Barracks	41 08	102 54	.....	.....	.....	.....	....	....	.....	12.38	14.77

S. S. BURDETT, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
General Land-Office, November 1, 1875.

REPORT OF THE COMMISSIONER OF PENSIONS.

DEPARTMENT OF THE INTERIOR, PENSION-OFFICE,
Washington, D. C., November 1, 1875.

SIR: I have the honor to submit the following report of the transactions of this Bureau for the year ending June 30, 1875:

INVALID-ROLL—ARMY.

The Invalid Army-roll numbered on the 30th of June, 1874, 102,457 pensioners, at a total annual rate of $10,055,654.90. During the year, 5,598 original pensions of this class were allowed; 268 pensioners were restored to the rolls, whose names had been dropped because of failure to apply for payment of pension within three years after it had become due, (section 4719 Revised Statutes,) and 10 were restored who had been dropped, on the ground that the right to pension had been forfeited, which upon further investigation proved to be unwarranted—in all, 5,876 additions to the roll at an annual aggregate rate of $395,164, and its annual amount was further augmented by the increase of the rates of 13,483 pensioners in the annual aggregate amount of $860,508.40.

The loss of pensioners to this roll by death, re-enlistment, recovery from disability, and failure to apply for pension within three years after it became due, numbered 2,855, whose pensions, with the amount of the reduction of the rates of other invalid-pensions, aggregated $352,109.30 annually, leaving a net roll on the 30th of June, 1875, of 105,478 pensioners, at a total annual rate of $10,961,218, an increase for the year of 3,021 in the number of pensioners, and of $903,563.10 in the aggregate yearly rate of pensions of this class.

ROLL OF WIDOWS, MINORS, AND DEPENDENT RELATIVES—ARMY.

On the 30th of June, 1874, this roll numbered 107,516, at a total annual rate of $13,537,195.56. During the past fiscal year 4,614 pensions of this class were allowed; 105 pensioners were restored who had been dropped under sec. 4719, and 13 were restored who had been dropped upon evidence of forfeiture of right to pension, which proved to be unreliable—in all, 4,732 additions to the roll since last report, at an annual aggregate rate of $661,246. The rates of former pensioners (1,927) were increased in the annual aggregate amount of $90,964.67.

This roll lost by death, remarriage, expiration of minors' pensions, and failure to receive payment within three years after it became due, 7,363 pensioners, whose pensions aggregated $1,453,826.39, leaving a net roll on the 30th of June, 1875, of 104,885, at a total annual rate of $12,835,579.84, a decrease for the year of 2,631 in the number of pensioners, and of $701,615.52 in the annual amount of pensions paid this class.

ROLL OF THE SURVIVORS OF WAR OF 1812.

On the 30th of June, 1874, the number borne upon this roll was 17,620, at a total annual rate of $1,691,520. During the past year 241 names were added to this roll, and 1,986 were lost by death, leaving a net roll, June 30, 1875, of 15,875, at a total annual rate of $1,524,000, a decrease for the year of 1,745 pensioners, and of $167,525 in the aggregate annual amount paid to this class.

WIDOWS OF THE SOLDIERS OF THE WAR OF 1812.

This roll numbered on the 30th of June, 1874, 5,312, at a total annual rate of $509,952. During the past fiscal year 416 names were added to the roll, but it lost by death 565, leaving upon it June 30, 1875, the names of 5,163 pensioners, at a total annual rate of $495,648, a decrease for the year of 149 in the number, and of $14,334 in the amount of pensions of this class.

INVALID-ROLL—NAVY.

The Navy-invalid roll numbered June 30, 1874, 1,551, at a total annual rate of $162,930. There were during the year 162 new pensions of this class allowed, and the names of 8 former pensioners, which had been dropped from the rolls under section 4719, were restored, making 170 additions to the roll during the year, at an annual aggregate rate of $16,802.

The pensions of 127 of this class were increased in the annual amount of $11,566, and the names of 85 were dropped from the rolls, their pensions having ceased from various causes, the amount of whose pensions, together with that resulting from reductions of the rates paid other pensioners upon this roll, aggregated annually $7,684.25.

On the 30th of June, 1875, the names of 1,636 Navy invalid-pensioners were borne upon the rolls at a total annual rate of $183,163.75, an increase for the year of 85 pensioners, and of $20,683.75 in the amount of pensions paid to pensioners of this class.

ROLL OF WIDOWS, MINORS, AND DEPENDENT RELATIVES—NAVY.

The number borne upon this roll June 30, 1874, was 1,785, at a total annual rate of $287,534. There were added to it 122 new pensioners, whose annual rates aggregated $18,490, and the rates of 24 former pensioners were increased in the aggregate annual amount of $1,356. The pensioners lost from this roll from all causes numbered 123, whose pensions aggregated $17,920, leaving a net roll on the 30th of June, 1875, of 1,784, at a total annual rate of $289,460, a decrease of 1 in the number of pensioners of this class, and an increase of $1,926 in the value of their pensions, since last report.

GRAND AGGREGATE.

The number of pensioners of all classes added to the rolls during the fiscal year ending June 30, 1875, was 11,557, and the number dropped from all causes was 12,977 a net decrease of 1,420. The number of pensions increased during the year was 15,561. The total number of pensioners borne upon the rolls June 30, 1875, was 234,821, by classes as follows:

Army-invalids	105,478
Army widows, minors, and dependent relatives	104,885
Survivors of the war of 1812	15,875
Widows of the soldiers of the war of 1812	5,163
Navy-invalids	1,636
Navy widows, minors, and dependent relatives	1,784
Total	234,821

All pensioners upon the roll are embraced in the above six classes.

Of the widows of revolutionary soldiers, 13 who were married prior to 1800, and 366 married subsequent to that date, are still borne upon the rolls, a decrease of 1 in the former, and of 30 in the latter, since last report. These, with 1,009 half-pay widow pensioners, are included in the class "Army widows, minors, and dependent relatives."

The following comparative statements will show the number of pensioners upon the rolls and the annual amounts of the rolls at the close of each of the last two fiscal years, with the gains and losses during the intervening time:

NUMBER OF PENSIONERS UPON THE ROLLS.

Class.	On the rolls June 30, 1874.	Added during the year.	Losses during the year.	On the rolls June 30, 1875.	Net gain.	Net loss.
Army, invalids	102,457	5,876	2,855	105,478	3,021	
Army, widows, &c	107,576	4,732	7,363	104,885		2,691
1812, survivors	17,620	241	1,986	15,875		1,745
1812, widows	5,312	416	565	5,163		149
Navy, invalids	1,551	170	85	1,636	85	
Navy, widows	1,785	122	123	1,784		1
Total	236,241	11,557	12,977	234,821	3,106	4,526

Net loss to whole roll, 1,420.

ANNUAL AMOUNT OF THE ROLLS.

Class.	Amount of the rolls June 30, 1874.	Added during the year.	Losses during the year.	Amount of the rolls June 30, 1875.	Net gain.	Net loss.
Army, invalids	$10,055,654 90	$1,255,672 40	$350,109 30	$10,961,218 00	$905,563 10	
Army, widows, &c	13,537,195 56	752,210 67	1,453,826 39	12,835,579 84		$701,615 72
1812, survivors	1,691,520 00	23,136 00	190,656 00	1,524,000 00		167,520 00
1812, widows	509,952 00	39,036 00	54,240 00	495,648 00		14,304 00
Navy, invalids	162,930 00	28,368 00	7,684 25	183,613 75	20,683 75	
Navy, widows	287,534 00	19,846 00	17,920 00	289,460 00	1,926 00	
Total	26,244,786 46	2,119,169 07	2,074,435 94	26,289,519 59	928,172 85	883,439 72

Net gain to whole roll, $44,733.13.

DECREASE IN THE NUMBER OF PENSIONERS.

The following tabular statement exhibits the number of pensioners on the roll at the termination of each fiscal year since 1861:

For the fiscal year ending June 30—	Number of invalids on the roll at the end of each year.	Number of widows, minors, and dependent relatives on the roll at the end of each year.	Whole number of pensioners on the roll at the end of each year.	Increase for the year.	Decrease for the year.
1861	4,337	4,299	8,636		
1862	4,341	3,818	8,169		467
1863	7,821	6,970	14,791	6,622	
1864	23,479	27,656	41,135	26,344	
1865	35,880	50,106	85,986	44,851	
1866	55,652	71,070	126,722	40,736	
1867	69,565	83,618	153,184	26,462	
1868	75,957	93,686	169,643	16,459	
1869	82,850	105,104	187,963	18,320	
1870	87,521	111,165	198,686	10,723	
1871	93,394	114,101	207,495	8,809	
1872	113,954	118,275	232,229	24,734	
1873	119,500	118,911	238,411	6,182	
1874	121,628	114,613	236,241		2,170
1875	122,989	111,832	234,821		1,420

The decrease in the aggregate number of pensioners upon the roll, commenced last year, has continued during the year now closed. The number June 30, 1875, was 1,420 less than on the 30th June, 1874. This was from losses to the roll of widows and dependent relatives by death, remarriage, and expiration of minors' pensions, and to the rolls of survivors and widows of the war of 1812 by death. More than 11 per cent. of the soldiers of the war of 1812, pensioned for 60 days' service, on the roll June 30, 1874, died during the succeeding twelve months.

The invalid-roll continues to increase, and notwithstanding its losses, numbered 3,021 more on the 30th of June, 1875, than at the close of the preceding fiscal year, and for the first time since 1863 exceeded the roll of widows and dependent relatives. Its increase largely counterbalances the losses to the other rolls and makes the annual decrease of the aggregate roll comparatively small. Its annual rates are also steadily increasing In 1871 the average rate of pension paid to Army-invalid pensioners was $89.18; in 1872, $90.26; in 1873, $96.46; in 1874, $98.14; and in 1875, $103.91, or $8.65 per month. This exceeds "total" pension to every pensioner upon the roll. The rates vary from $1 to $50 per month. The increase in these rates increased the aggregate annual amount of the whole roll during the fiscal year $44,733.13, although it had lessened in number and the rates of the widows' roll had been largely reduced by the expiration of minors' pensions.

With the aggregate annual amount of the roll yearly augmenting, but small reduction in the pension-expenditures can be expected.

This shows the necessity of a careful medical examination, at stated periods, of all invalid-pensioners whose disability is not permanent beyond a doubt.

The average rate of widows' and minors' pensions has been reduced from $125.91 annually to $122.37, principally by children reaching sixteen, at which age the $2 per month additional to each ceases. Of 96,654 receiving this additional amount on the 30th of June, 1874, but 83,047, including the names added during the year, remained on the roll June 30, 1875. Of this number, 8,525 will reach the age of sixteen years before the close of the present calendar year; 18,029 will reach that age in 1876; 18,855 in 1877; 15,703 in 1878; and 21,935 subsequent to January 1, 1879.

The following tabular statement shows the average yearly rates of pension of different classes, based upon the condition of rolls at end of each fiscal year given.

Classes.	1871.	1872.	1873.	1874.	1875.
Invalid, Army	$89 18	$90 26	$96 46	$98 14	$103 91
Widows, &c., Army	126 41	128 00	124 56	125 91	122 37
Invalid, Navy	90 94	94 23	105 27	105 05	112 23
Widows, &c., Navy	154 02	155 61	158 05	161 08	162 25
1812, survivors	96 00	96 00	96 00	96 00	96 00
1812, widows	96 00	96 00	96 00	96 00	96 00
Whole roll, excluding 1812	109 96	111 02	111 21	112 71	113 52
Whole roll, including 1812	109 90	109 72	110 14	111 09	111 95

APPROPRIATIONS AND DISBURSEMENTS.

ARMY.

The amount appropriated for Army-pensions for the fiscal year ending June 30, 1875, (see act of June 20, 1874, U. S. S., p. 117,) was..... $29,500,000 00

The amounts paid therefrom, as per accounts rendered by pension-agents, was as follows:

To invalids, including surgeons' fees, &c., and cost of artificial limbs and commutation therefor.....$11,748,433 79

To widows and dependent relatives, including expenses of disbursement	$15,525,734 30	
To survivors of the war of 1812	1,355,599 86	
To widows of the soldiers of the war of 1812, pensioned under the act of February 14, 1871	533,000 21	
Total		$29,162,768 16
Unexpended balance		337,231 84

NAVY.

The original appropriation for Navy-pensions, by act of June 20, 1874, (U. S. S., p. 115,) was		$480,000 00
This amount being found insufficient, a further appropriation was made March 3, 1875, of		75,000 00
Total appropriation for Navy-pensions		555,000 00
The amount used in paying pensions was:		
To invalids, including cost of disbursement	$185,675 82	
To widows and dependent relatives	334,672 65	
Total		520,348 47
Unexpended balance		34,651 53

Of the unexpended balance of the appropriation for Army-pensions there remained in the hands of the pension-agents on the 30th day of June, 1875, $322,619.41.

Of the unexpended balance of the appropriations for Navy-pensions, the amount remaining in hands of pension-agents on the 30th of June, 1875, was $20,649.73.

The balances due from the agents have since been deposited to the credit of the Treasurer of the United States and covered into the Treasury under section 3690, Revised Statutes, not being available for disbursement after the close of the fiscal year for which appropriation was made. Under section 3691, Revised Statutes, they will be passed to the surplus-fund at the close of the fiscal year, June 30, 1876.

Below is presented, for the purpose of comparison, a tabular statement showing the amounts paid to each class of pensioners during the last two fiscal years.

Class of pensioners.	Amount paid during fiscal year ending June 30, 1874.	Amount paid during fiscal year ending June 30, 1875.	Disbursements increased.	Disbursements decreased.
Army, invalids	$10,853,367 86	$11,748,492 79	$895,065 93	
Army, widows	16,998,835 95	15,525,734 30		$1,468,101 65
Survivors 1812	1,588,832 95	1,355,599 86		233,233 09
Widows 1812	616,016 40	533,000 21		83,016 19
Navy, invalids	174,185 36	185,675 82	11,490 46	
Navy, widows	367,511 04	334,672 65		32,838 39
Total	30,593,749 56	29,683,116 63	906,556 39	1,817,189 32

Decrease in disbursements, $910,632.93.

APPROPRIATIONS FOR 1875–'76.

The appropriations for the present fiscal year are as follows:

For Army-pensions	$29,500,000 00
For Navy-pensions	500,000 00

ESTIMATES FOR 1876–'77.

In view of the reduction and probable losses to the widows' Army-roll and the roll of the survivors of the war of 1812 exceeding the gain

of the Army-invalid roll, the estimates for Army-pensions for the year 1876–'77 were made $29,000,000, which is $500,000 less than the appropriation for the present fiscal year, and $162,768.16 less than the actual expenditures of the past year. Unless there is some further liberalizing legislation by Congress, an appropriation of this amount will be sufficient.

For Navy-pensions, the estimate submitted was $535,000, which is $14,651.53 more than the expenditures during the year 1874–'75 and $35,000 greater than the appropriation for the present fiscal year, (which appropriation will be found insufficient.) The estimate was raised, not only because of the steady gain of the invalid-roll, both in numbers and average rates, but because of the increase in the aggregate annual amount of the widows-roll.

PENSION-AGENCIES.

By order of the Hon. Secretary of the Interior of December 10, 1874, the pension-agency at Santa Fé, New Mexico, was re-established, and Abram G. Hoyt, receiver of public moneys, designated pension-agent. This increased the number of agencies to 58. The agency for the State of Virginia was, by executive order of May 21, 1875, removed from Richmond to Norfolk, Va. These are the only changes, during the year, in the number or location of the agencies or the boundaries of their districts, which, with these exceptions, remain the same as given in the last annual report.

With scarcely an exception the affairs of the agencies have been ably and satisfactorily conducted. Some of the agents have become veterans in the service, and have made records for fidelity, integrity, and capacity unexcelled by any other public officers. Their zealous efforts to bring the pensioners into more direct communication with this Office have been productive of much benefit to both, and the assistance they have rendered in protecting the Government against the payment of pensions obtained by fraud has been particularly valuable.

Improvements have been made in the manner of keeping the records and rolls, and better methods of preserving these and the other valuable papers of the agencies have been provided.

With a single exception accounts have been promptly rendered, and no deficits or irregularities occurred during the year. This branch of the service was never in better condition than at the close of the fiscal year, June 30, 1875.

TABULAR STATEMENTS.

Your attention is respectfully invited to the tabular statements, which have been prepared to accompany this report, upon the following subjects:

A. Number and amount of Army pensions allowed and increased in each State and Territory during the past fiscal year.

B. Amount paid to Army-pensioners in each State and Territory during the last fiscal year.

C. Number and amount of Army-pensions June 30, 1875, by States and Territories.

D. Balance of Army-funds in the hands of pension-agents.

E. Number and amount of Navy-pensions allowed and increased in each State and Territory during the past fiscal year.

F. Amount paid to Navy-pensioners in each State and Territory during the past fiscal year.

G. Number and amount of Navy-pensions June 30, 1875, by States and Territories.

H. Balance of Navy-funds in the hands of pension-agents.

I. Statement of the number of Army, Navy, and privateer pensioners, with the amount paid each year from 1791 to June 30, 1875.

K. Rates of invalid Army-pensioners, and the number at each rate in each State and Territory June 30, 1875.

L. Same of Navy-invalids.

M. Statement showing the different ranks of the Army-invalid pensioners and the number of each rank in each State and Territory, June 30, 1875.

N. Same of Navy-invalids.

O. Same; Army widows and dependent relatives.

P. Same; Navy widows and dependent relatives.

Q. Classification of the Army-widows and dependent-relatives roll by widows with children, widows without children, minors, mothers, fathers, and orphan brothers and sisters, showing the number of each class in each State and Territory, and also the total number of children of deceased soldiers in the United States receiving the benefits of the pension-laws, with the number who will reach the age of 16 years and be dropped from the rolls in 1875, 1876, 1877, 1878, and subsequent to 1878.

R. Same of Navy widows and dependent relatives.

INVALID-CLAIMS.

During the past fiscal year 12,236 original applications for Army and Navy invalid pensions, and 17,111 claims for increase of the same class of pensions were received; 933 claims have been withdrawn from the rejected files and re-opened upon additional evidence. The number of pensioners of this class added to the rolls during the year has been heretofore given. The number of original claims rejected was 2,605, of increase, 4,664; total rejected, 7,269. At the close of the year there remained upon the pending files 32,228 original and 6,772 increase claims of this class, as compared with the number pending at the close of the preceding year, an increase of 5,114 in the original claims, and a decrease of 979 in the claims for increase of pension.

It is estimated that by the 4th day of December, 1875, (the date on which next quarterly payment of pension becomes due) there will be filed in this Office 12,500 applications for increase of pension based upon the biennial examinations of September 4 last.

Section 4698½, Revised Statutes, provides that * * * * "no increase of pension shall be allowed to commence prior to the date of the examining-surgeon's certificate establishing the same, made under the pending claim for increase," which clearly appears to render it absolutely essential that an examination should be made subsequent to filing the application for increase to warrant the allowance of the increased rate of pension. Cases of permanent specific disability are excepted by the section, they being elsewhere provided for by law.

The necessary action in these claims for increase could be readily determined from the reports of the biennial examinations of September 4; in fact, the certificates of re-examinations in so short a time would be, in many instances, but copies of the reports of the biennial examinations, now on file in this Office, and to order another examination after the application for increase has been filed would result only in the loss of much valuable time to the clerical force of the Office, subject the claimant to considerable annoyance and delay, and involve an apparently useless expense to the Government, in the payment of fees to examining-surgeons of $25,000 in the number of applications above estimated.

In view of these facts I respectfully recommend that the attention of Congress be directed to the propriety of such amendment to section 4698½ as will permit the acceptance of certificates of biennial examinations within six months after such examinations are made, as sufficient for the purpose of adjudication of claims for increase, and that the increase in such cases commence from the date of the examination.

WIDOWS', ETC., CLAIMS.

The receipt of original claims of widows, minors, and dependent relatives, Army and Navy, during the year, numbered 5,472; the claims for increase, 1,452; and the number of rejected claims re-opened for further consideration upon additional evidence, was 150. Of original claims of this class, 690, were rejected during the year. The number of original claims of this class pending at the close of the year was 33,138, and of increase 1,006 as compared with the number pending at the close of the fiscal year of 1874, an increase of 112 in the original claims and a decrease of 609 in the claims for increase.

I respectfully suggest the propriety of further legislation defining what shall constitute sufficient proof of remarriage of pensioned widows and mothers.

It has been the custom of this Office to accept evidence of cohabitation and general recognition as husband and wife, as sufficient proof of marriage to entitle to pension in cases where it is clearly shown that more satisfactory proof cannot be furnished. Though the pensions of a large number of this class of pensioners cease annually upon evidence of their remarriage, the investigations of the agents of this Bureau develop the fact that many others evade the law and continue to draw pensions while living in a condition of remarriage to all intents and purposes, but without an actual marriage under the law.

Where such cohabitation is found to exist in those States in which it constitutes a marriage, it has been held to work a forfeiture of right to pension, but in most of the States the Office is obliged to witness the violation of the evident intent of the pension-law without the power of prevention. It is evident in many of these cases that a lawful marriage is purposely avoided, in order that the pension may be retained, and pensioners are encouraged by the facility with which the law may be evaded to live in a condition of lewdness destructive of good morals.

I would therefore suggest that such amendment be made to existing laws on this subject, as will authorize the acceptance of the same class of proof of marriage as would be received to establish the rights of widow claimants to pensions, originally, as sufficient to destroy that right, or, in other words, evidence of cohabitation should be sufficient evidence of remarriage to drop the widowed pensioner from the rolls.

Amendment of section 4705 is also suggested, so that its operation upon colored claimants may be confined to those who at the time of their alleged marriage resided in the late slave States, in which such marriages were not recognized. There appears to be no good reason why the discrimination, made by the liberal provisions of this section, between white and colored claimants should extend to those of the latter residing in the States in which marriages of colored persons were recognized by law.

WAR OF 1812.

During the past fiscal year applications for pensions were filed by 425 survivors of the war of 1812, and 571 applications were filed by widows

of soldiers who served in that war. The claims of 240 survivors and 416 widows were allowed, and 604 of the former class and 515 of the latter rejected, leaving on the pending files at the end of the fiscal year 398 claims of survivors and 343 of widows.

Of the soldiers who served sixty days in the war of 1812, 7¼ per cent. have been pensioned under act of February 14, 1871. Including the widows of such soldiers pensioned, the proportion is 9½ per cent.

Of the number of claims filed under said act, 19¼ per cent. have been rejected, because the period of service did not equal the number of days (sixty) prescribed by the act.

The number of soldiers who served sixty days or more during the war of 1812 was 296,916; the number who served less than that time, 232,738.

Congress at its last session gave some attention to the matter of decreasing the term of service prescribed by the act of February 14, 1871, but no legislation on the subject was perfected. It seems but just and proper that favorable action should be taken; and also that the Seneca Indians of the State of New York, who rendered valuable aid to the Government during the war of 1812, should be entitled to the same benefits as the other survivors of that war.

BOUNTY-LAND.

During the year ending June 30, 1875, 675 applications for bounty-land were received; 407 warrants were issued calling for 63,560 acres of land, and 333 applications were rejected.

In the last annual report of the Secretary of the Interior the attention of Congress was directed to the propriety of fixing some limit to the time allowed for the prosecution of claims for bounty-land, and reasons therefor were given which grow stronger as time advances.

So long a time has elapsed since the occurrences of which proof is required, and the witnesses have reached so advanced an age that the parol evidence upon which many of these claims are adjudicated, as provided in section 2431, Revised Statutes, is very unreliable, and it would appear imperatively necessary that the interests of the Government should be protected by further legislation upon this point.

Much embarrassment to this Office has grown out of the facility with which bounty-land warrants can be transferred under the act of June 3, 1858, (section 2444 Revised Statutes,) whereby all military bounty-land warrants are declared to be personal chattels, to be conveyed by assignment of the legal representatives of deceased claimants.

Such warrants being inchoate title to land were treated as realty until the passage of the act above mentioned, under decisions of the Attorney-General and of the Supreme Court of the United States.

Since the passage of the act they have been easy of control by legal representatives improperly appointed. To illustrate: An attorney prosecutes a claim for bounty-land warrant before this Office in behalf of a party residing in Kentucky at the time of his death, and the warrant issues in the name of claimant after his decease.

The attorney goes to a distant State, Massachusetts for instance, with the warrant in his possession, and alleging that a portion of the estate of deceased (viz, the warrant) is within the jurisdiction of the court, and that said estate is indebted to him for fees in procuring the warrant, applies to the proper court for letters of administration upon the estate of said claimant. Whereupon the court appoints an administrator, who assigns the warrant to the attorney in payment of his fee, and the heirs are left in ignorance of the transaction, and defrauded of their right. Other instances might be cited wherein the rights of claimants are affected by this provision of the law.

I earnestly recommend the repeal of so much of section 2444 as declares military bounty-land warrants to be personal property, and also that section 2445 be repealed.

This done, and the Office will have less difficulty in controlling the issue of warrants and preventing fraud, as the warrants when issued would go direct to the heirs and not to the administrator.

MEDICAL DIVISION—EXAMINING-SURGEONS.

On the 30th day of June, 1874, the examining-surgeons holding appointment from this Office numbered 1,443. During the last fiscal year 5 have been dismissed for incompetency, 18 have been dropped because of change of residence, 70 have been removed for various causes, principally neglect of duty, 1 has been suspended, 49 have resigned, 23 have died, and 214 have been appointed. The whole number holding appointment on the 30th day of June, 1875, was 1,491.

The number of medical and surgical examinations made by examining-surgeons, under orders from this Office, was, for the fiscal year, 24,494. The tabular statement, submitted herewith, shows the number of examinations ordered and made in the different classes of claims in each State and Territory, and the total number of examinations, as above given. The biennial examinations are not included in this statement.

Number of medical examinations ordered by the Office, made by examining-surgeons, and of which certificates were received during the fiscal year ending June 30, 1875.

States and Territories.	Character of claims.					
	Applicants for original pension.	Applicants for renewal or restoration of pension.	Applicants for increase of pension.	Appeal.	Dependent relatives.	Total examinations by States.
Alabama	3	1	3	.....	.....	7
Arkansas	30	3	21	.....	.....	54
California	45	16	41	1	.....	103
Connecticut	196	10	121	1	.....	338
District of Columbia	61	2	84	.....	.....	147
Delaware	33	.....	28	.....	.....	61
Florida	5	.....	.....	.....	.....	5
Georgia	7	.....	6	.....	.....	13
Illinois	1,067	60	1,124	9	41	2,301
Indiana	953	49	1,069	11	31	2,113
Iowa	518	20	529	2	27	1,096
Kansas	372	22	388	1	11	794
Kentucky	265	12	211	.....	22	510
Louisiana	35	1	26	.....	1	63
Maine	334	33	329	10	69	775
Maryland	88	3	110	2	4	207
Massachusetts	425	43	494	.....	22	989
Michigan	393	22	503	3	29	950
Minnesota	205	11	183	1	16	416
Mississippi	6	2	.....	.....	.....	8
Missouri	493	41	427	3	13	977
Nebraska	100	11	159	2	2	274
Nevada	1	.....	.....	.....	.....	1
New Hampshire	95	23	142	1	11	272
New Jersey	331	14	223	.....	2	570
New York	1,497	83	1,557	8	125	3,270
North Carolina	21	1	7	.....	.....	29
Ohio	1,013	52	1,302	6	48	2,421
Oregon	4	1	6	.....	.....	11

Number of medical examinations ordered by the Office, &c.—Continued.

States and Territories.	Character of claims.					
	Applicants for original pension.	Applicants for renewal or restoration of pension.	Applicants for increase of pension.	Appeal.	Dependent relatives.	Total examinations by States.
Pennsylvania	1,395	74	2,374	9	78	3,930
Rhode Island	30	2	26	.....	3	61
South Carolina	2	.....	4	.....	.....	6
Tennessee	185	14	108	1	12	320
Texas	10	.....	11	1	.....	22
Vermont	128	23	174	1	27	353
Virginia	14	1	39	.....	.....	54
West Virginia	95	2	75	1	2	175
Wisconsin	260	19	384	3	23	689
Arizona	.....	.....	.....	.....	.....	.....
Colorado	16	5	28	1	.....	50
Dakota	7	1	12	.....	1	21
Montana	5	1	5	.....	.....	11
Utah	2	.....	3	.....	.....	5
Washington	1	1	3	.....	.....	5
Wyoming	4	.....	4	.....	.....	8
Indian	5	.....	3	.....	.....	8
Total	10,755	685	12,346	78	630	24,494

During the past year it was found necessary to return for correction a large percentage of the certificates of examining-surgeons forwarded to this Office, the defect in a majority of cases being the want of an intelligent and particular description of the disability found. When the number of changes made in the roster of surgeons during that time is taken into consideration, the cause of these deficiencies is readily observed. Though the surgeon may be thoroughly competent to make the examination, it is only after practical knowledge of the requirements of the Office that he is able to describe the condition of the applicant in such manner as is necessary for an intelligent adjudication of his claim for pension.

The effort to secure thorough examinations and carefully-constructed reports has been unrelaxed. The same is true in regard to the appointment of examining-surgeons. So far as possible, men of high professional standing have been sought; but with all the precautions taken it appears to be impossible to secure such medical examinations and certificates, under the present system, as are desirable for a proper adjustment of claims before this Office.

Numerous instances have occurred where incompetent surgeons have been imposed upon the Office, no means being at hand to test their qualifications before appointment. In other instances, claim-agents have secured their appointment by means of petitions to members of Congress, thereby placing the examining-surgeons under obligation to give biased ratings of disabilities, favorable to their clients.

One of the chief sources of delay in the adjudication of claims for invalid-pension results from incomplete description of the disability in the certificate of examination, requiring their return for amendment, and these certificates are often not returned to the Office at all, or are retained by the surgeon for weeks and months. Where these abuses have occurred they have been remedied as far as possible by the dismissal of the offender.

While it gives me pleasure to bear witness to the faithfulness and ability of many of the examining-surgeons, yet great improvement might be made in the system and manner of their appointment.

The position of examining-surgeon in many localities is not sufficiently remunerative to induce surgeons, of high professional character and extensive experience, to accept the appointment. Even if the fees for examinations were increased so as to command the best talent, it is believed that local prejudices and influences would operate to render it almost an impossibility to secure perfectly fair examinations in all cases. A surgeon dependent upon a community for his practice, and especially when subjected, as must nearly always be the case, to powerful rivalry, is dependent upon the opinion of his neighbors. Particularly will he be influenced by the wounded and diseased survivors of the war, who in all communities are objects of sympathy, and this influence though, perhaps, imperceptible to the surgeon, who may be perfectly conscientious in the performance of duty, must necessarily, to some extent, bias his judgment of the degree of disability found to exist, and give color to his report to this Office.

In order to secure greater efficiency and perfectly impartial examinations and reports, it is recommended that the laws now in force, relative to the appointment of examining-surgeons, be so modified, as to authorize the employment of a number of surgeons at a fixed annual salary, equal in amount to at least the average earnings of first-class physicians, who shall be assigned to certain defined districts into which the country shall be divided, subject to changes of location as the interests of the service may demand. It is believed that sixty will be the number required to perform properly the service designed.

It is not desirable at this time that the present mode of appointment and payment of examining-surgeons should be entirely superseded by the appointments herein recommended, but, as far as possible, the examinations be made by the salaried surgeons, which will permit a large reduction in the number and the gradual retirement of those appointed under the present system, their services being required only in such cases where for want of time the salaried surgeons are unable to make the examination without subjecting the claimant for pension to long delay.

SPECIAL SERVICE.

During the fiscal year, 1,530 claims were investigated by the special agents of this Office. Of those cases in which pensions had been paid, 309 were found to be fraudulent. The names of these pensioners were dropped from the rolls, resulting in a saving of $2,605 per month, or $31,260 annually. Estimating the average duration of a pension at eight years, but for these investigations the payments in those cases would have amounted in that time to $250,080. Through the action of the agents in this service during the year, $16,398.70 of pension-money, which had been unlawfully obtained, was refunded to the Government.

The average amount of accrued pension paid by the Government in each fraudulent claim is estimated to be $577.29. During the year the agents of this Office recommended the rejection of 243 pending claims (supporting the recommendation by sworn testimony) which without such investigation would probably have been allowed. Assuming that adverse action was taken in 80 per cent. of those cases, the saving therefrom would be $112,225.17.

The amount of saving to be credited to this service during the past fiscal year is as follows:

Saved, per annum, by dropping names from the roll	$15,928 97
Recoveries in cash	16,398 70
Rejections	112,225 17
Total	144,552 84

The knowledge of the existence of such a system and the liability of detection through its agency no doubt prevents the presentation of many fraudulent claims which would otherwise be imposed upon the Government. The benefit derived in this manner from this branch of the service cannot be estimated in money. During the year eight persons were tried for violations of the pension-laws, of whom seven were convicted and one acquitted. At the close of the year forty-two cases were in the hands of United States district attorneys for prosecution.

The development of frauds of every character in pension-claims has assumed such a magnitude as to require the serious attention of Congress. It is impossible in a limited space to present more than a general outline of the usefulness of a well-organized special service in the detection and prevention of frauds upon the Government, in this class of claims.

From the nature of the system under which the right to pension is determined under existing laws, viz, upon *ex-parte* evidence, the successful prosecution of many fraudulent claims cannot be prevented, even though the utmost caution be exercised.

The lapse of time since the war, and the consequent unreliability of parol proof relating to facts and circumstances at this remote date from their occurrence, afford the most forcible argument for the adoption of a more thoroughly-organized system of adjudicating these claims.

By actual test in cases taken from the files of this Office it is shown that a large percentage of the affidavits filed in support of claims for pension are signed and sworn to without being read over to affiants, and without their having a full and proper knowledge of the contents, though accompanied with a certificate of the magistrate before whom they are executed, that the witnesses have been fully informed of the import; and in numerous instances what is called "manufactured evidence" has been filed by unprincipled claim-agents, particularly in cases of colored claimants.

Unless each case is investigated by a special agent it is impossible to prevent the admission of some fraudulent claims under the present system, where the Government has to rely upon the evidence offered, without opportunity to cross-examine the witnesses, and possesses no means for the detection of fraud except through the special service of this Bureau, which, in its present condition as to limited number, is entirely insufficient for the purpose.

The very heavy penalties provided by law for the punishment of claim-agents who demand exorbitant fees, or withhold money due pensioners fails to produce the desired effect, viz, the protection of claimants from the rapacity of unprincipled agents. Their comparative security from detection in these practices, resulting from the insufficiency of the means of discovery, renders the law upon this point almost nugatory.

The only way to prevent fraud and secure the benefits of the gratuity of the Government to its maimed defenders and their widows and orphans is by the organization of some system by which detection may be made sure and the law vigorously and promptly applied in all cases wherein it has been violated. Under section 4744, Revised Statutes, the

details for service as special agents are made from the clerical force of this Bureau, which is inadequate for the performance of the current work within the Office. Any large detail under the above section has therefore been altogether impracticable. Under the present system, and owing to the limited appropriation for the service, not more than thirteen agents can be regularly employed, and these are driven to their utmost endurance. A large number of claims are now held for investigation, which it has been impossible to order, owing to the insufficiency of the force at command. Some of these claims have been held for this purpose for the past two years, during which time the clamor for speedy action has been incessant, and much ill-feeling has been engendered by the delay.

It is earnestly recommended that the attention of Congress be directed to the re-organization of the special service of this Bureau upon a basis similar to that of the Post-Office and Treasury Departments, providing for the appointment of a corps of special agents, at least thirty in number, at a stated annual salary and a reasonable allowance per diem for subsistence, in addition to their actual traveling-expenses.

The present system permitting the detail of clerks of the Bureau for this special duty should be retained, so that such details may be made when practicable and necessary, should the number of regular agents be found inadequate to perform the service required.

Owing to the fact that the benefits of the pension-laws are enjoyed by persons residing in the remotest sections of the country, and that there is so little publicity in the manner of payment of pensions, violations of the law in a majority of cases are not brought to the attention of the Office until after the expiration of the time within which the guilty parties may be prosecuted. It is suggested that the limitation should be extended to five years, as provided in cases arising under the revenue-laws.

If Congress would authorize the publication of a printed list of pensioners residing in each county, to be posted in some conspicuous place, the post-office of the shire-town or court-house for instance, with a request that persons having knowledge of any one upon the list who may not be entitled to pension would report the name to this Office, it would result in bringing promptly to notice many cases of fraud which, otherwise, would remain undiscovered.

MAIL-DIVISION.

During the past fiscal year, in addition to the applications for pensions and bounty-land, and the certificates of examining-surgeons, (the number of which has already been stated herein,) there were received 51,000 reports from the War Department (Adjutant and Surgeon Generals' Offices) relative to service of soldiers and their treatment in hospital; 15,600 communications from other departments of the Government, and 81,000 pieces of additional evidence from other than official sources. The value of postage-stamps used during the year was $22,906, an average of nearly $74 per day.

One of the principal sources of complaint against the administration of this Bureau has been the failure to answer promptly letters of inquiry, and while some instances of apparent neglect must occur, yet particular attention is being paid to this important duty. The greater number of claimants for pension are persons who have but little idea of the extent of the operations of the Government, and, consequently, the time neces-

sarily consumed in attending to their demands appears to them unreasonable delay.

A system has been inaugurated of keeping a complete list of all the letters received and answered, which has proved a decided success, as evidenced by the decrease in the number of complaints upon this score.

By this system, delay in the answering of any communication can be readily detected and traced to the employé responsible therefor.

SEATON HOUSE.

The objections to the occupancy of the Seaton House for the transaction of the business and as a repository of the valuable records and files of this Office have been annually stated by my predecessor, and have been so forcibly brought to the attention of Congress through the annual reports of the Secretary of the Interior, without result, that further remark upon the point would seem useless. They still exist, in even an increased degree.

The proofs filed in the 73,885 claims for pension remaining unadjudicated consists largely of evidence that cannot be duplicated, and their destruction would entail upon the claimants incalculable loss. The destruction of the valuable records of the Bureau would be equally disastrous to the Government.

In view of the insecure condition of the building, and to provide, as far as possible, against their destruction by fire, I have caused the pending files and the records of the Office to be placed in cases upon the ground-floors, so constructed as to admit of their speedy removal. Available space will not permit of the same disposition of the admitted files, and in the event of the destruction of the building by fire, but a small portion, if any, of them could probably be removed.

The four-years' lease under which the building has been held expired on the 10th day of August last, and it is now retained under a condition of the lease, which provides for further occupancy from year to year, as may be necessary, at the same yearly rental ($10,000) as is therein provided. The adjacent buildings, rented by the Department at an annual rate of $4,000, in order to supply the demand for necessary space, are open to the same objection as the Seaton House. Effort was made, before the expiration of the four years, to rent a more suitable building, but none fire-proof and of sufficient capacity could be secured. It is earnestly desired that Congress be again urged to provide for a building better adapted for the purposes of a public office.

BOARD OF APPEAL—REVIEWERS.

Difficulty in securing uniformity in the interpretation of law, and in its application to evidence, has always been experienced, and will probably always be encountered to a greater or less degree in every public office in which, of necessity, owing to its magnitude, the business is distributed among different divisions, almost entirely distinct from each other in their operations.

Variations heretofore in the action of this Office upon different claims involving similar points of law have given rise to considerable criticism—in many cases well merited. These have been promptly reconciled when brought to notice.

Fully appreciating the necessity of correcting, as far as possible, this defect, soon after entering upon the duties of this Office I organized a board of appeal, consisting of the deputy commissioner, as chairman, and four members, selected from among the experienced clerks of the Bureau, with a view to their practical knowledge of the pension-law and its application, whose duty it is particularly to finally revise all claims

in which rejection is proposed, in order that none shall be adversely decided without the most careful and thorough consideration, and, generally, to take action upon such other claims and matters in connection therewith, in which intricate points are involved, as require unusual attention, the action of the board in all cases being subject to my supervision. Though but a short time has elapsed since its organization, the beneficial results growing out of the establishment of the board have exceeded the most sanguine expectations.

As a further step toward securing perfect consistency and regularity in decisions, it is my intention to consolidate under one head all the reviewers (who revise the claims after action has been taken by the examiner) now distributed among the different adjudicating divisions.

While absolute perfection cannot probably be attained, it is believed that by these changes a decided advance in that direction will be accomplished.

INCREASE OF CLERICAL FORCE, RE-ORGANIZATION, ETC.

There is probably greater public interest in the faithful and vigorous administration of the affairs of this Office than in any other branch of the Government.

Through no other source is its generosity extended to so large a number, and by no other class is its assistance more generally needed, and, when received, more thoroughly appreciated, than by its disabled soldiers and sailors, and the widows and orphans of those who lost their lives in defense of their country.

It is therefore essential that the claims pending be disposed of as rapidly as possible, in order that those justly entitled should speedily receive the gratuity guaranteed them by the Government. Though every effort has been made to promptly dispose of the current work of the Office, delays have occurred which have given rise to much complaint throughout the country, but which, with the clerical force now allowed by law, could not possibly be avoided.

In order to meet the present emergency, I have to earnestly recommend that the force of this Office be increased by 10 clerks of class four, 10 of class three, and by 4 assistant messengers, 2 watchmen, and 4 laborers, at $720 per annum, and that some plan of re-organization be applied which will insure an increased rate of salary to those employed in its most responsible operations.

This is justly due, particularly to the chief clerk, members of the board of appeal, chiefs of divisions, reviewers, and qualified surgeons, whose labors and responsibilities are steadily augmented by the increased difficulty in the adjudication of claims, (to which allusion has already been made,) and whose duties require the exercise of the highest order of talent.

This is properly the soldiers' and sailors' Bureau, and in making recommendations for appointments to the clerical force I have considered it my duty, all things being equal, to give precedence to the claims of the late soldier or his children for position, believing they will, as a class, feel a deeper interest in the prompt dispatch of business and the fair adjudication of pending claims.

The employés of the Bureau, both ladies and gentlemen, have uniformly applied themselves to their respective duties with a zeal and earnestness highly commendable.

Very respectfully, your obedient servant,

H. M. ATKINSON,
Commissioner.

To the Hon. SECRETARY OF THE INTERIOR.

REPORT OF THE COMMISSIONER OF INDIAN AFFAIRS.

DEPARTMENT OF THE INTERIOR,
OFFICE OF INDIAN AFFAIRS,
Washington, November 1, 1875.

SIR: I have the honor, in accordance with law, to submit the annual report of the Indian Bureau, accompanied with reports of eighty-two superintendents and agents. Only one agent has failed to forward his report.

The attention of the honorable Secretary is especially invited to the general encouraging tenor of these reports, conveying unmistakable evidence of a year of advance in the civilization of Indians. This testimony is entitled to great weight. It comes from competent witnesses on the ground, men of ordinary intelligence and common sense, speaking out of personal knowledge and experience of from one to five years. With few exceptions, abundantly accounted for by untoward circumstances, their testimony is uniform to the fact that the civilization of Indians is not only entirely practicable but is fairly under way. While public attention is being directed principally to the great Sioux tribe in its disturbed condition, the larger portion of the remaining 225,000 Indians who have passed the year comparatively unnoticed furnishes the field of labor from which the encouraging facts are gathered.

A comparative statement, made from statistics covering a period of five years, gives ample concurrent testimony to a steady progress year by year. The statistics of the present year, gathered with more than usual care, furnish important facts for consideration. By the number of Indians returned they substantially verify the counts and estimates of last year, making a total, as now enumerated, of 278,963. This population is determined by actual count of the tribes, with the exception of Navajoes, Papagoes, Pueblos, Mission Indians, roamers in Oregon, the Blackfeet, Piegans, non-treaty Sioux, and a portion of the Utes, in all less than fifty thousand, and for these fifty thousand, with the exception of not exceeding ten thousand, the estimates have been based on long acquaintance with the condition and habits of their tribes, and cannot be far from correct.

Taking labor which Indians undertake for themselves and its results as a standard of progress, the reports show forty-two thousand six hundred and thirty-eight male Indians, representing not far from the same number of Indian families, undertaking self-support by labor with their own hands. A portion of them have labored awkwardly enough, and with little profit to themselves, except that which comes from the effort, but the majority of these laborers have procured the larger portion of their means of living, as represented in a crop of 2,575,440 bushels of corn, wheat, and other small grains, and 471,630 bushels of potatoes and other vegetables. The fields under cultivation by individual Indians planting for themselves aggregate 329,327 acres, a larger area by 12,432 acres than ever before reported, and nearly 200,000 acres more than were cultivated in 1871, a gain of 149 per cent. in five years, and over 550 per cent. in ten years. Additional lands broken and ready for cultivation next year aggregate 23,146 acres. Five years ago 10,329 Indian families were living in houses. This year shows 19,902, a gain of 92 per cent. The number of Indian children attending school during the year is reported at 10,598.

The school-reports do not show a gain in education equal to that shown in the products of labor. This is due partly to the want of increase of

funds for school purposes, but more largely, I believe, to the accurate reports of the last three years respecting the school attendance. The monthly report of each teacher furnishes the means of entire correctness as to the numbers above quoted. This report would have shown still more gratifying results but for the fact that for want of later returns the statistics for four civilized tribes in the Indian Territory are taken from the report of 1872. There is every reason to suppose that among these 42,000 people there has been a larger proportion of gain for three years past than among any other Indians.

For general information concerning the different tribes, and the condition of their agency affairs, reference is made to a summary statement given hereafter.

INDIAN WARS.

In my last annual report I ventured the statement that "except under extraordinary provocation, or in circumstances not at all to be apprehended, it is not probable that as many as five hundred Indian warriors will ever again be mustered at one point for a fight; and with the conflicting interests of the different tribes, and the occupation of the intervening country by advancing settlements, such an event as a general Indian war can never again occur in the United States."

During the year passing in review there has been less conflict with Indians than for many previous years. With the exception of the Cheyennes and Comanches, who at the close of the period covered by my last report had still refused to surrender to the military, there has been no hostile engagement with the United States troops, and complaint of marauding has been much less than usual. This fact is significant. According to all experience in the management of Indians, this year should have been marked for bloody conflicts. White settlements have been brought nearer to wild Indians than ever before; many disturbing questions have arisen, and with the most warlike and powerful of all the tribes there has been a constant series of irritations which in any previous year would have raised the war-cry along a large exposed section of the frontier.

The Sioux have been many times represented as about to go out on the war-path; at other times they have been reported as disaffected by bad management of bad agents and goaded by desperation of hunger and cold to an outbreak. Nothing shows the utter want of truth in all these reports more clearly than the fact that when they were brought cheerfully to relinquish a cherished hunting and roaming privilege they requested that nearly all the $25,000 received in compensation for this relinquishment should be expended in cows, horses, harness, and wagons. Such use of money indicates anything but a hostile intent on the part of the Red Cloud and Spotted Tail Sioux.

It will probably be found necessary to compel the northern non-treaty Sioux, under the leadership of Sitting Bull, who have never yet in any way recognized the United States Government except by snatching rations occasionally at an agency, and such outlaws from the several agencies as have attached themselves to these same hostiles, to cease marauding and settle down, as the other Sioux have done, at some designated point. This may occasion conflict between this band of Indians and the soldiers. There is also a possibility that the Utes in Northern New Mexico, who are without a home, unsettled and insolent, and transiently fed at Cimarron and Abiquiu, may before long require coercion by force of arms. But neither of these bands can bring three hundred men into the field. I am led not only to repeat with increased

confidence the statement made last year that a general Indian war is never to occur in the United States, but also to the opinion that conflict with separate tribes will hereafter be of rare occurrence, and only in the nature of skirmishing.

RELINQUISHMENT OF HUNTING-PRIVILEGE IN NEBRASKA AND KANSAS.

By the treaty of 1868 the Sioux retained for themselves the right to hunt in Nebraska on any lands north of the North Platte and on the Republican Fork of the Smoky Hill River. By act of Congress, March 3, 1874, $25,000 was appropriated for the purchase from the Sioux of the right to hunt in Nebraska. The negotiations for this purchase, undertaken by a special commission in 1874, having failed to obtain the consent of the Indians, were renewed during the visit of the Sioux delegation to Washington in May last, and resulted in an agreement signed by the chiefs and headmen in the presence of their tribe, a copy of which is herewith.

The treaty of 1868 also stipulated that "the country north of the North Platte River, in Nebraska, and east of the summits of the Big Horn Mountains, in Wyoming, should be held and considered unceded Indian territory, and that no white person or persons should be permitted to settle upon or occupy any portion of the same, nor, without the consent of the Indians first had or obtained, should pass through the same."

The distinction between the country assigned for a permanent reserve and that described as neutral territory seems never to have been clear to the Sioux mind; and when the northern boundary-line of Nebraska was surveyed, which by their treaty is made the dividing-line between their permanent reserve and the neutral country, they were surprised and troubled to find it running north of their present agencies and of the country which they have always regarded and intended to retain as their own; and they demanded that the surveyor's stakes should be taken up and moved south of the Niobrara River. The negotiations for the cession of this neutral country, in addition to that of the hunting-rights, was thus found to be involved in unexpected difficulty. The Indians attached large value to the rights they were surrendering, and declined to accept the sum appropriated by Congress, except upon the condition that the Department would present their claim to Congress for the additional sum of $25,000. This pledge was given to them by the Secretary of the Interior when they entered into the agreement above named, reference to which will show that the attempt to procure the relinquishment of all the neutral country resulted in a compromise, by which the Sioux stipulate for themselves the right of occupation of that portion of Nebraska lying west of the 100th meridian and north of the south divide of the Niobrara River. Good faith with the Indians will therefore make it necessary to lay this matter before Congress and ask for an appropriation in the sum of $25,000.

THE SIOUX PROBLEM.

For a full discussion of the question of the future of the Sioux, attention is respectfully invited to my last annual report, page 6.

It affords me no small gratification to find the observations and conclusions reached at that time upon this subject fully confirmed by the report of the Red Cloud investigating commission, after many weeks spent in the Sioux country in careful inquiry into the condition and prospects of these Indians. The problem for these people has not

approached a solution during the year, unless it shall be found that the discussion arising from the Black Hills excitement and the investigation at Red Cloud agency have so awakened the public attention to the present necessities and pitiable condition of the Sioux as to lead to immediate, appropriate, and vigorous measures for their relief, by removing the Indians at the Red Cloud and Spotted Tail Agencies to the Missouri River, by driving out the squaw-men who infest the Indian country, and by compelling labor as a return for rations. These three essential undertakings will require for success three things: (1) Largely increased appropriations for the Sioux during the next two years, which may thereafter be steadily diminished till they cease altogether; (2) the most efficient and hearty co-operation of the War Department; (3) in order to afford a suitable location for Red Cloud and his people, the removal of the Poncas from their present reservation, which is a part of their Sioux country, and their consolidation with the Omahas in Nebraska.

Sooner or later these or other radical measures must be adopted, the only alternative being to continue to ration and clothe the Indians as idle and insolent vagrants and paupers. I do not believe it possible to subsist the Sioux many years longer upon the appropriations which Congress can be induced to make for feeding purposes only. The whole spirit of our people and of American institutions revolts against any process that tends to pauperism or taxation for the support of idlers. The bringing of these wild Sioux under such wholesome restraint would also be of a material aid to the process of civilization now progressing among other bands of the nation along the Missouri River, upon whom it has as yet been impossible to enforce proper discipline in the requirement of labor for rations, because of the proximity and example of Red Cloud and Spotted Tail agencies.

But the reports of agencies along the river, with the possible exception of Standing Rock, show that it is entirely feasible to civilize the Sioux, provided a suitable country can be found for their occupation and the Government and its agents are capable of continuance in well-doing. At Cheyenne River, bands of Sioux who three years ago were as intractable, as impatient of labor, and in other respects as far from the first steps of civilization as Spotted Tail's immediate followers are to-day, have been induced to erect log houses and open farms to such an extent that the agency is able to report 240 Indian families living in houses, 240 *male* Indians who labor in civilized pursuits with their own hands, and 138 children in school.

The report of the Crow Creek agent, as an account of a first successful year's effort in civilization, is equally encouraging. The reports of the Yankton and Santee Sioux are still more hopeful. Among the latter civilization is an accomplished fact, and if the Yanktons could plant crops with ordinary certainty of a harvest, they would shortly provide their own subsistence. Such progress indicates unmistakably that the difficulty of the Sioux problem does not inhere principally in the Sioux nature, but in the barrenness of their country and the absence of necessary control.

THE BLACK HILLS.

The public excitement mentioned in my last report, occasioned by the discovery of gold in that portion of the Sioux reservation known as the Black Hills country, increased to such a degree in the opening of the spring season as to require action looking toward the purchase of this country from the Sioux proprietors and the opening up of the Big Horn

Mountain country for settlement and mining. For this purpose, as well as for completing the negotiation for the relinquishment by the Sioux of their hunting rights in Nebraska and Kansas, a large delegation of this tribe, composed of representatives from those agencies, was brought to Washington in May last for an interview with the President. It was not expected that this interview would conclude the purchase, but that it would prove a preliminary step by which the Sioux tribe would become acquainted with the wishes of the Government and its purposes relative to their own necessities and interests. Accordingly, at the request of the delegation, the President sent a commission, of which Hon. W. B. Allison, of the United States Senate, was made chairman, to negotiate at a general council of the tribe in their own country. The commission has not yet submitted its report, but I am informed that the negotiations have failed on account of a wide disagreement as to the value of the rights to be relinquished by the Sioux. Meanwhile, notwithstanding the stringent prohibitory orders by the military authorities, and in the face of the large military force which has been on duty in and around the Hills during the summer, probably not less than a thousand miners, with the number rapidly increasing, have made their way into the Sioux country. A mining association has been organized, laws and regulations have been adopted for mutual protection, and individual claims staked out, in the right to which they expect hereafter either to be protected by the Government or to protect themselves.

In this serious complication there seems to be but one alternative for the Government: either to so increase the military force and adopt such summary means as will insure a strict observance of the treaty-rights of the Sioux by preventing all intrusion, or to renew the effort of negotiation. However unwilling we may be to confess it, the experience of the past summer proves either the inefficiency of the large military force under the command of such officers as Generals Sheridan, Terry, and Crook, or the utter impracticability of keeping Americans out of a country where gold is known to exist by any fear of orders or of United States cavalry, or by any consideration of the rights of others.

The occupation and possession of the Black Hills by white men seems now inevitable, but no reason exists for making this inevitability an occasion of wrong or lasting injury to the Sioux. If an Indian can be possessed of rights of country, either natural or acquired, this country belongs for occupation to the Sioux; and if they were an independent, self-supporting people, able to claim that hereafter the United States Government should leave them entirely alone, in yearly receipt of such annuities only as the treaty of 1868 guarantees, they would be in a position to demand to be left in undisturbed possession of their country, and the moral sense of mankind would sustain the demand; but unfortunately the facts are otherwise. They are not now capable of self-support; they are absolute pensioners of the Government in the sum of a million and a quarter of dollars annually above all amounts specified in treaty-stipulations. A failure to receive Government rations for a single season would reduce them to starvation. They cannot, therefore, demand to be left alone, and the Government, granting the large help which the Sioux are obliged to ask, is entitled to ask something of them in return. On this basis of mutual benefit the purchase of the Black Hills should proceed. If, therefore, all attempts at negotiation have failed on the plan of going first to the Indians, I would respectfully recommend that legislation be now sought from Congress, offering a fair and full equivalent for the country lying between the North and South Forks of the Cheyenne River, in Dakota, a portion of which equivalent should be made to take the place of the free rations now granted.

SURVEY OF THE BLACK HILLS—THEIR VALUE TO THE INDIANS.

In order to provide for the question of a fair equivalent for this country, by direction of the President, a topographical and geological survey of the Black Hills was ordered, the preliminary report of which, by Walter P. Jenney, mining engineer in charge, will be found herewith. It furnishes many interesting and important facts respecting a region hitherto almost unknown. Professor Jenney and his assistants are entitled to large credit for the conscientious diligence and thoroughness, which are apparent at every point in their work. The aid rendered by the War Department, by the courtesy of the General of the Army, and by Col. R. I. Dodge, commanding the escort, has been invaluable to the success of the survey. Without such aid, no satisfactory results could have been obtained, on account of the limited funds available for this purpose. The report confirms, in a large degree, the statements of travelers and explorers and the reports of General Custer's military expedition, of last year, and shows a gold-field with an area of eight hundred square miles, and around this gold region, principally to the north, an additional area within the Black Hills country of three thousand square miles of arable lands, and this latter embracing along its streams an area equal to two hundred square miles finely adapted to agriculture, while the hill-sides and elevations contiguous thereto are equally adapted to purposes of grazing, making the whole area of three thousand square miles of timber, grazing, and arable land of great value for agricultural purposes.

According to the findings of this report, if there were no gold in this country to attract the white man, and the Indians could be left to undisturbed occupation of the Black Hills, this region, naturally suited to agriculture and herding, is the one of all others within the boundaries of the Sioux reservation best adapted to their immediate and paramount necessities. I doubt whether any land now remaining in the possession of the General Government offers equal advantages; but it will be found impracticable to utilize the country for the Sioux. So long as gold exists in the same region, the agricultural country surrounding the gold-fields will be largely required to support the miners, and to attempt to bring the wild Sioux into proximity to the settlers and miners would be to invite provocations and bloody hostility.

These facts respecting the country which the Sioux seem about to be compelled to surrender, for the sake of promoting the mining and agricultural interests of white men, have an important bearing upon the question of compensation which shall be allowed for their lands; for it must be borne in mind that unless the Sioux Nation becomes extinct, of which there is no probability, the time is close upon them when they must have just such an opportunity for self-support as that which is now known to be offered in the Black Hills; and if, for the want of another such country, they are obliged to begin civilization under increased disabilities, humanity as well as equity demands that such disability shall be compensated by increased aid from the Government; and to avoid the perils of future legislation, or want of legislation, the compensation should be provided for and fixed at the time when we are taking away their valuable lands.

The fact that these Indians are making but little if any use of the Black Hills has no bearing upon the question of what is a fair equivalent for the surrender of these rare facilities for farming and grazing. They are children, utterly unable to comprehend their own great necessities just ahead; they cannot, therefore, see that the country which

now only furnishes them lodge-poles and a few antelope has abundant resources for their future wants, when they shall cease to be barbarous pensioners upon the Government and begin to provide for their own living. Their ignorance of themselves and of true values makes the stronger appeal to our sense of what is right and fair.

The true equivalent to be offered the Sioux, as helpless wards of the Government, for the Black Hills will be found by estimating what eight hundred square miles of gold-fields are worth to us, and what three thousand square miles of timber, agricultural, and grazing lands are worth to them.

THE MISSION INDIANS OF SOUTHERN CALIFORNIA.

These Indians have heretofore been the subject of much inquiry and effort for relief by the Department. In 1873 Special Commissioner Rev. John G. Ames made thorough inquiry into their condition and necessities, and made full report of the same. The measures suggested in that report and recommended to Congress for adoption not meeting with approval, Commissioner C. A. Wetmore, of California, made further inquiries as to the feasibility of a different plan for relieving their disabilities, and submitted his report in December, 1874. These reports furnished valuable information to the Office, from which, together with previous reports of superintendents and agents, the following facts respecting these Indians are compiled.

They have received the name of Mission Indians from their relation to the early Catholic missions on the Pacific coast, the first of which was established at San Diego in 1769, others following until 1804, at which time there were nine missions at different points lying along the coast between San Diego and San Francisco. The missionaries having a semi-religious and semi-political recognition by the authority of Spain and Mexico, assumed control of the entire coast, and by degrees brought the Indians under subjection and gathered them in settlements around their missions, where they were instructed in agriculture and a low form of civilized life, and put to labor in cultivating large tracts of fertile lands, which they were allowed to occupy in common, under the direction and control of the padres. The original idea on which these missions were maintained seems to have been that so soon as these Indians should be brought, as converts of the church, into a condition for self-support, the lands which they were occupying and cultivating should be allotted as their own. But the profitableness of the peonage and the docility of the Indians made any haste in the direction of individual rights unnecessary if not undesirable on the part of the missionaries. They were therefore continued in peonage and without recognition of their individual rights up to the date of the secularization act of 1833. At this time the Indian missions were the centers of industry and of wealth and of social attraction for the Pacific coast country. In 1826. they were reported at twenty-one missions as numbering 25,000, and possessed of 365,000 head of cattle, sheep, and horses, and harvesting 75,000 bushels of grain. The "law of secularization" passed in the Mexican Congress treated all these Mexican lands, with their improvements, flocks, and herds, as the property of the church, and divided them up among a few Spanish and Mexican families. The Indians were scattered over the country, principally along the coast, upon the fertile watered, and then unoccupied tracts, and procured their living by herding wild cattle and horses, cultivating small patches of ground, and receiving employment from the surrounding whites, whom they accepted virtually as their masters.

In this way they gradually came into possession, and some have continued to occupy the best portions of the country without inquiry as to whether their homes were embraced in the boundary-lines of a Mexican grant or liable at any moment to be entered at the land-office in the name of some settler.

When the tide of trade and the gold emigration swept over the State of California, these Indians were found practically without protection by law in their rights to the land on which they were living, and by suits of ejectment and cost of contingent fees it was comparatively easy for the incoming American to dispossess all the Indians of Northern and Middle California. Thus made homeless wanderers, the process of vice and destitution by which they were carried away is fitly described as extermination. For the 4,000 or 5,000 who remained in the southern portion of Lower California, this doom seems to have been postponed by the delay in the settlement of the country. Gradually, however, for the past eight years, Southern California has been filling up by emigration; Spanish and Mexican grants have been "determined" in such a way as to cover choice tracts wherever found; large ranches have been cut up and the desirable portions of public domain pre-empted; and thus all available agricultural lands have been seized or occupied by individual owners, who, in conformity to law, have become possessed of the lands on which the remnants of a few thousand Mission Indians are making their homes in San Diego and San Bernardino Counties. So long as the pre-emptors and purchasers did not require their lands for use or sale, the Indians were allowed to remain undisturbed and in blissful ignorance of the fact that the place they called home had by law passed to the ownership of another. Of late, under the increasing demands for these lands, writs of ejectment are being procured by which the Indians are forcibly dispossessed and turned adrift in poverty and wretchedness.

The Indians living on the tract of land known as Temecula, in the county of San Diego, have within the past two months been thus dispossessed. The Temecula ranch was confirmed by the district court of the United States for the southern district of California to Louis Vigues in 1855. No steps were taken to disturb the Indians until 1873, when a judgment was recovered in the city of San Francisco against these Indians, who were at that time living 500 miles away, all unconscious that any person was seeking their possessions; and on the 17th of August last the owners, under Vigues, procured a writ from the court in San Francisco for ejectment of Indians and for the satisfaction of the costs by the personal property of the Indians. The execution of this writ has not only deprived the Indians of their homes and of their crops just maturing for harvest, but has taken their little personal property in satisfaction of cost of judgment. It is easy to understand the exasperation and despair produced among the Indians by such an order enforced by the authority of the State. Their remonstrance and threats under the provocation were interpreted to mean violence, and the aid of the United States military was evoked against them. Their forbearance and peaceful disposition were, however, soon manifest, and the fears of white citizens allayed. The agent has been instructed to procure, if possible, a suitable ranch which may be leased temporarily, with privilege of purchase; but the embarrassments under which the Department has labored for the past two years in its efforts to rescue these Indians from their present condition still continue. There are no adequate funds for their relief, either in purchasing small tracts of country, or leasing ranches, or for furnishing rations in adequate amount.

In 1870, on the representation of the agent, Lieut. A. P. Greene, United States Army, indorsed by the superintendent, B. C. Whiting, six townships were set apart for the permanent homes of these Indians, and the lands, by Executive order, were withdrawn from public sale. At that time a few settlers had made improvements of comparatively small value within these six townships. This tract of country, known as the Pala and San Pasqual reservations, was adapted to the Indians' wants, and contained lands sufficient to furnish homes for all the Indians in California who were liable to be dispossessed of the homes they were occupying. But the setting apart of these reservations received the most strenuous, united, and persistent opposition of the citizens and press of California. The proceeding was represented as an enormous swindle upon the Government and a hardship and outrage upon the Indians, and numerous petitions and remonstrances, signed by leading citizens, were forwarded to the President. And the Indians themselves, for whose benefit alone the reservations had been created, were induced to ask not to be sent thither, but to be "let alone" upon the lands they were then occupying, and which they were left to believe would remain permanently their homes.

In accordance with this demand of public opinion in California, Commissioner Parker suggested to the Department the propriety of restoring the Pala and San Pasqual reserves to the public domain, which was accordingly done by Executive order of February 17, 1871, and this last opportunity of furnishing these Indians with homes by substituting public lands in California for those in the title to which the Government had failed to protect them was lost. A resistance to the public demand in strict conformity with justice to the Indians would have enabled the Government then at slight cost to have made ample provision for the Mission Indians. Thus matters remained until in 1873 the Department, anticipating for all the Mission Indians what has lately happened to the Temecula band, called the attention of Congress most earnestly to the subject. The necessary appropriation asked for this purpose not being granted, attention was again called during the last session of Congress to the same subject, and an appropriation of $100,000 asked for the Indian service in California, by which great relief would have been brought to these Indians; but that estimate was reduced in the bill to the usual amount granted for the other Indians of that State, leaving but a small amount which could in any case be used for the Mission Indians.

In my judgment, the best method of meeting the necessities of these Indians will be to secure to them by withdrawal from sale all the public lands upon which they are now living. Under directions from the Office, the agent has employed a surveyor to indicate such boundaries as will enable the President to issue an Executive order making the proper withdrawal. This course, however, will provide for but very few of the Indians, from the fact that nearly all of the arable lands in that section of the country have been sought for and are covered by Mexican land-grants or entries in the United States Land-Office. For the remainder, it will be necessary to purchase small tracts of land at different points upon which the Indians may locate permanent homes, and where they will be in the vicinity of the planters and ranch-men, who will give them profitable employment as laborers. For the purchase of these tracts and of the improvements which may be found within other tracts desirable for small reservations, an appropriation of not less than $150,000 will be required, and I respectfully suggest that the attention of Congress be again called to the importance of this subject.

INDIAN CAPTIVES.

Congress at its last session appropriated funds for an experiment of enforced civilization among the captives of the Kiowa, Comanche, and Cheyenne tribes of the Indian Territory. It was proposed to move a large number of these hostiles—from three to four thousand—away from their present surroundings, and from the buffalo range and easy opportunity for raiding in Texas, to a portion of the Indian Territory where they could be disarmed, dismounted, and prevented from returning to their old haunts, and compelled to undertake day-labor in return for the food and clothing furnished them by the Government.

In pursuance of this plan, a tract of country containing 40,000 acres was procured from the Quapaws, who have a reservation lying in the northeast corner of the Indian Territory. Such preparation as the season allowed has been made for the reception of these captive hostiles, in the breaking of ground and erection of buildings; but owing to objections raised by military officers, the execution of the plan is still in abeyance, and the Indians, with the exception of seventy, are at their former agencies. These seventy were selected by the military officers, as ringleaders in marauding and guilty of other enormities, for punishment, and were taken by the War Department to Fort Marion, on the coast of Florida, where they are still held as prisoners. The effect of this treatment is most happy upon others of the tribe. It is the first wholesome lesson which these Indians have ever had in a settled purpose of the Government to compel them to cease from murder and marauding. I deem the delay in the proposed experiment of enforcing civilization by removing a portion of these Indians to Quapaw reservation as unfortunate; and it will still be more unfortunate if it finally be decided to abandon the plan, and thus surrender this most favorable opportunity of compelling Indians hitherto wild and idle, and often insolent in their demands for rations, to come to daily toil or suffer hunger.

THE INDIAN TERRITORY.

No marked change has appeared in the condition of the five civilized tribes in the Indian Territory. They number 55,000, and occupy a country containing 62,000 square miles, or more than one square mile to a person. No statistical reports having been received concerning them since 1872, the Office has no means of making a comparative statement of their condition, but there is abundant evidence that socially they are in a transition state. They feel the pressure of the white man on every side, and, among the full-bloods especially, there is a growing apprehension that before long the barriers will give way, their country be overrun, and themselves dispossessed. To the more intelligent among them, and especially the mixed-bloods, who are able to see that close contact with the civilization of the whites will help forward rather than retard their own civilization and prosperity, this outlook is not so full of apprehension. Indeed, it is probable that if the question were left to this class among the Indians, with primary reference not only to their own interests, but to the common welfare, they would regard the settlement of families of respectable whites in such numbers as to fairly populate the country as a contribution to the prosperous condition of the Indians, rather than otherwise; provided that before the pressure and competition of white neighbors is permitted, the Indians themselves should have first come into individual ownership of a homestead, without power to alienate the title, and with a fair acquaintance by experi-

ence of its value as a home. In other words, this people are now at the point in civilization where the next lesson can be given, not in councils or in continued isolation, but in the living example of a neighbor, who, by his skill and industry in cultivating the same soil from which they procure a scanty and precarious livelihood, comes rapidly into comfort and wealth. The time has not by any means arrived for throwing this country open to settlement, but the fact is before them, and should now be embraced in their plans for the future, that it is not possible for them and would by no means be well for them, if it were possible, by perpetuating their Indian nationalities, to live always outside the pale of United States citizenship, and that no Indian country can exist perpetually within the boundaries of this Republic without becoming in all essential particulars a part of the United States: and they should at once begin to shape their affairs with reference to this fact, by taking their lands in severalty, and by using all possible means of giving their children such education as will prepare them for contact and competition with white men.

GOVERNMENT FOR THE TERRITORY.

In order, however, to render such preparatory steps possible by the Indians, a long-neglected duty of providing adequate means for protection of life and property and punishment of crime among 71,000 people who are practically without law or means of justice should at once be undertaken by the United States.

Further effort has been made by leading men among these different tribes in the Indian Territory to procure the establishment of a consolidated government of Indians by Indians; but it has not succeeded, and this large population becomes more and more helpless under the increasing lawlessness among themselves and the alarming intrusion of outlawed white men.

The nearest United States court for this whole Territory is that of the western district of Arkansas at Fort Smith. The expense of making arrests by marshals, and securing the attendance of witnesses over the great distances of the Indian Territory, makes the court practically of little avail for protection or punishment. Meanwhile the country continues to afford an asylum for refugees from justice from the States and to invite the immigration of the very worst class of men that infest an Indian border. The need of this Territory to-day is a government of the simplest form possible; and, in my judgment, a government similar to that provided for "the territory of the United States northwest of the river Ohio," (Stat. at L., vol. 51,) preliminary to the organization of a general assembly, would, I think, be the best adapted for the Indian Territory at present, both on account of its simplicity and of its economy. It consisted of a governor, a secretary, and judges, who had power to adopt and publish in the Territory such laws of the United States, criminal and civil, as were found necessary and best suited to the circumstances of the Territory, said laws to be reported to Congress from time to time, and to be in force in said Territory unless disapproved by that body; the governor also to have power to appoint magistrates and other necessary civil officers.

The anomalous state of social and political affairs in this Territory renders some such form of government as above set forth much better adapted to the circumstances and necessities of the case than an elective and representative government could possibly be for several years. Of the seventy-one thousand, all but seven thousand have attained to such a degree of civilization as to be capable of appreciating and profit-

ing by a government of this character, and the remainder being the wilder and wholly uneducated tribes could be readily brought to feel its force in restraint and education. On the other hand an elective government for these people would bring together representatives from thirty-five different tribes, and any legislation or any discussion to be made intelligible must be translated into as many different tongues. But a more serious, and I think more fatal, objection would be found in the sectional and tribal jealousies, which have their strength in proportion to the ignorance of a people, and among these thirty-five tribes would render most, if not all, the enactments of such a representative body practically of no avail to govern its people or enforce its laws.

I believe the simple form of government above suggested can be made strong and effective and will prevent the experiment of a confederated self-government, for which the Indians are not prepared, and which would be sure to result in anarchy and strife.

Great care should be taken, however, that this government be so restricted in its powers that its sole function shall be to make and administer law, for the prevention of intrusion, the protection of the rights and interests of the Indians as against all outside parties, and to define the rights and enforce the obligations of the Indians as among themselves; and this Government should be strictly prohibited from any attempt to confer rights or privileges upon any corporation whatever, or upon any individual other than the lawful members of the Indian tribes. By this method I deem it entirely feasible by appropriate legislation to provide an efficient government for the Territory to the great benefit of the people governed without encroaching upon the rights and privileges of individuals. If, however, it shall be deemed inexpedient to provide such a government on account of treaty stipulations that each separate tribe shall govern itself, then I would respectfully recommend the establishment of a United States court within the boundary of the territory, with such a force of marshals as shall be sufficient for the execution of the process of court without calling for troops to act as posse.

These Indians occupy a most interesting and important position in the history of the country. They ought not to be left the prey to the worst influence which can be brought to them in the life and example of the meanest white men. They deserve such guardianship and care on the part of the United States as will secure for them the powerful aid to elevation which comes from the presence of law.

CONSOLIDATION OF AGENCIES.

While some of the agencies are overcrowded with Indians, bringing more persons under the management of one agent than he can well control, there are instances where reduction of agencies by consolidation is both practicable and desirable. During the past year three agencies in Arizona have been put into one, to the increased economy and efficiency of the service. The effort to consolidate Siletz and Alsea agencies in Oregon, interrupted by the winter-season, will be resumed in the spring. Legislation was sought from the last Congress which would have permitted an important consolidation of agencies and reservations in Washington Territory, reducing their number by one-half, and effecting a corresponding saving in the cost of administrating agency affairs.

I respectfully recommend that this matter be again brought to the attention of Congress.

Further consolidation may be effected by combining the two Nevada agencies, and by sending the Poncas to the Omahas or the Indian Territory and the Hoopa Valley Indians, and, if possible, the Tule River Indians also to Round Valley, in California.

INSPECTORS.

Forty-four Indian agencies have been inspected during the year Additional service was required, and would have been rendered but for the inadequate appropriation for the traveling expenses of the inspectors. By act of Congress the number of inspectors was reduced from five to three, and the provision requiring agencies to be visited in rotation by different inspectors was repealed. The use of the force has been thus placed at the discretion of the Department, and the service of three made equivalent to that of five, as rendered under previous restrictions.

This force, however, is not sufficient to meet the requirements of thorough and frequent inspection. By increasing the number to five, with a sufficient allowance for mileage, the additional expense will be many times compensated in securing increased efficiency of the service, and economy in the use of agency funds.

HOMESTEADS FOR INDIANS.

In my last annual report I laid special emphasis on the importance of securing for Indians the privilege of a homestead-act by which those disposed to abandon tribal connections and Indian life might be able to secure homes for themselves on the public land. By legislation of Congress a privilege looking to this end was procured; but in order to secure the highest benefit, such modifications of the Indian homestead-act are required as shall guard against the attempt of speculators who will seek to induce Indians not yet prepared for a homestead to avail themselves of its privileges, with a view to secure an easy partition of the tribal funds, which in many instances are of such amounts as to make the Indians a prey to the avarice of his white friend and attorney.

LAW FOR INDIANS.

I had the honor to make the following recommendations in my last annual report respecting the necessity of such additional legislation as will secure a suitable government for Indians:

1. By providing that the criminal laws of the United States shall be in force upon reservations and shall apply to all offenses, including those of Indians against Indians, and by extending the jurisdiction of the United States courts to enforce the same.

2. By declaring Indians amenable to the police-laws of the State or Territory for any act committed outside a reservation.

3. By conferring upon the President authority at his discretion to extend the jurisdiction of the State courts, or any portion of them, to any reservation whenever, in his judgment, any tribe is prepared for such control.

4. By providing sufficient force of deputy marshals to enforce law and order both among and in behalf of Indians.

5. By giving authority to the Secretary of the Interior to prescribe for all tribes prepared, in his judgment, to adopt the same, an elective government, through which shall be administered all necessary police regulations of the reservation.

6. By providing a distinct territorial government or United States court, wherever Indians are in sufficient numbers to justify it.

These recommendations failed to receive favorable action, and as a consequence the Department has had another year of experience in the effort to govern over 275,000 people without any law punishing crime committed among themselves. Several instances have occurred in which the State courts have been asked to receive an Indian prisoner arrested and delivered to them, and to try him for murder or other high crime; the evidence of guilt was abundant, but the Indian has always escaped punishment for want of jurisdiction of the court.

Practically the crime of murder, where only Indians are concerned, committed off a reservation and within a State or Territory, cannot be punished, either for want of jurisdiction or from indifference on the part of the local authorities. This state of immunity for crime by Indians is unfortunate for them and embarrassing to the service, and becomes increasingly so as a tribe approaches civilization, from the fact that every step in that direction loosens and disintegrates the old tribal government of authority by chiefs, and furnishes only anarchy in return.

Such legislation is absolutely required for the further progress among the Indians as shall modify radically their relation to the Government in the following particulars:

First. To make an Indian as amenable to law as any other subject of the United States.

Second. To encourage and, if necessary, to compel him to abandon tribal relations and act for himself as an individual.

So long as the Government allows an Indian to live without law, and furnishes inducements for him to remain one of a herd with only community interests, instead of coming under personal responsibility for good behavior, and individual rights of property, he will be found disabled and oppressed with needless difficulties. By appropriate legislation recognize each man no longer as a member of a savage tribe, but as capable of individual manhood, and on that theory provide for his necessities and capabilities, and a very important step has been taken in the advancement of the work which now lingers waiting for this aid.

RELATIONS OF THE INDIANS TO THE STATES.

The theory of Indian sovereignty has practically placed the Indians at a disadvantage in their relations to the several States where they are found. Being held by the State authorities to be neither citizens nor paupers, nor criminals, nor wards in any sense, they come easily to be regarded on all hands as outcasts and intruders, and a normal prey for anybody strong or cunning enough to defraud them.

The most potent and sure remedy for this evil will be found in committing the Indians at the earliest day possible to the care of the State. It is not probable that State authorities will be found ready to accept this care with its responsibilities, except in cases where the Indians have attained to such a degree of civilization as to become self-supporting, and in other respects ready to mingle with the citizens of the State, and be subject to the same municipal control; or in cases where sufficient funds are provided for by the annuities of the tribes, or by the surplus lands within the reservations, or by special appropriation of Congress to meet all probable expenses incident to their care and preparation for citizenship. These conditions already exist among the Indians of New York, and Michigan, and North Carolina, and a portion of those in Wisconsin, Iowa, and Minnesota.

There can be no question that the interests of all parties concerned would be benefited by a transfer of the care of the Indians upon the seven reservations in New York to the authorities of that State, either directly, or by declaring said State the guardian or agent of the United States in their behalf. The funds belonging to these Indians, $4,000 per year, would then be disbursed under the care of the officers of the county in which the Indians reside, and could easily be applied for school purposes, support of orphans, or for meeting some other common want of the Indians, instead of being expended, as they now are, in the purchase of annuity-goods, amounting to a few yards of calico and cotton-cloth to each person. With the responsibility of these Indians thus assumed by the State, it is not at all probable that there would long remain in the heart of New York seven Indian reservations existing as separate kingdoms, one of them 40 miles long and 1 mile wide, within which the laws of the State relating to highways, schools, taxes, and the collection of debts have no jurisdiction.

The interest which the authorities of New York have shown in the protection and education of the Indians within her borders, leaves no doubt as to the benefit which would arise to the Indians from coming under the immediate care and entire control of the State, among the first of which would be immediate steps to bring the Indians into citizenship, qualified or entire. What is true of New York is also true of Michigan, although not to so marked a degree. Four-fifths of the Indians within her borders are prepared for full citizenship, living in their own homes and farms; and the others are in such a condition of advancement as to be quite unlikely to receive any further Government aid than is provided in their treaty stipulations. It is, therefore, largely for the interests of Michigan as well as for her Indians, that she should take charge of this people; and that the treaty-funds still due them should be so expended through her local officers that the most benefit shall be derived therefrom in the direction of the civilization and preparation for citizenship of a people who are a part of her body politic.

The same is true of the Chippewas, Menomenees, Oneidas, and Stockbridges in Wisconsin. They belong within this State, and there is no prospect or proposal for removing them. The property of these Indians in annuities and lands, and the timber standing on their reservations is ample to create a fund which will secure the State against any burden of taxation in their future care and control; and it would seem fit that the State having them in charge, and obliged ultimately to bear whatever disability may arise from their presence, is entitled now to take charge of their property, and so to manage it as to provide for the largest benefit to the Indians within her borders. What is true of Indians in Wisconsin and their property, may be said with some qualifications of the Chippewas in Minnesota.

I recommend that legislation be sought from Congress looking toward the divorcement of the United States and Indians as "citizens of a domestic sovereignty within our borders," and the transfer of the Indians and their property to the States where they reside, as rapidly as both the States and the Indians are prepared therefor; but the provisions of such legislation should be specific as to the States, and not in general terms.

TRANSFER OF THE INDIAN BUREAU TO THE WAR DEPARTMENT.

A question has been raised in many forms during the year as to the expediency of transferring the Indian Bureau from the Interior to the War Department. In 1868 this subject was quite thoroughly discussed,

and is treated of at length in the annual report of the Commissioner of Indian Affairs for that year. During that year, also, a peace commission was appointed by the President, under act of Congress, "to remove if possible the causes of war, to secure as far as practicable our frontier settlements and the safe building of our railroads, looking toward the Pacific, and to suggest or inaugurate some plan for the civilization of the Indians." This commission, composed of eight, three of whom were civilians of large acquaintance with Indian matters, and five military officers of high rank, and most familiar with the subject of which they treated, after visiting and making treaties with the most warlike and unmanageable of all the tribes, declared their opinion on the subject as follows:

"This brings us to consider the much-mooted question whether the Indian Bureau should belong to the civil or military department of the Government. To determine this properly we must first know what is to be the future treatment of the Indians. If we intend to have war with them, the Bureau should go to the Secretary of War. If we intend to have peace, it should be in the civil department. In our judgment such wars are wholly unnecessary, and hoping that the Government and the country will agree with us, we cannot now advise the change. It is possible that, in despite our efforts to maintain peace, war may be forced on us by some tribe or tribes of Indians. In the event of such occurrence, it may be well to provide, in the revision of the intercourse laws or elsewhere, at what time the civil jurisdiction shall cease, and the military jurisdiction begin. If thought advisable, also, Congress may authorize the President to turn over to the military the exclusive control of such tribes as may be continually hostile or unmanageable. Under the plans which we have suggested, the chief duties of the Bureau will be to educate and instruct in the peaceful arts—in other words, to civilize the Indians. The military arm of the Government is not the most admirably adapted to discharge duties of this character. We have the highest possible appreciation of the officers of the Army, and fully recognize their proverbial integrity and honor; but we are satisfied that not one in a thousand would like to teach Indian children to read and write, or Indian men to sow and reap. These are emphatically civil and not military occupations.

"But it is insisted that the present Indian service is corrupt, and this change should be made to get rid of the dishonest. That there are many bad men connected with the service cannot be denied. The records are abundant to show that agents have pocketed the funds appropriated by the Government, and driven the Indians to starvation. It cannot be doubted that Indian wars have originated from this cause. The Sioux war, in Minnesota, is supposed to have been produced in this way. For a long time these officers have been selected from partisan ranks, not so much on account of honesty or qualification as for devotion to party interests and their willingness to apply the money of the Indians to promote the selfish schemes of local politicians. We do not doubt that some such men may be in the service of the Bureau now; and this leads us to suggest that Congress pass an act fixing a day (not later than the 1st of February, 1869) when the offices of all superintendents, agents, and special agents shall be vacated. Such persons as have proved themselves competent and faithful may be re-appointed. Those who have proved unfit will find themselves removed without an opportunity to divert attention from their own unworthiness by professions of party zeal."

The wise expedient, recommended for ridding the service of unworthy

agents already in office, was not adopted by Congress, but has been virtually put into effect by the order of the President requiring the nomination of all Indian agents to come from the several religious bodies of the country.

This opinion respecting the transfer to the War Department was rendered before any well-defined plan for civilization had been adopted, and at a time when the Indian service, under civilian management, was in its most unsatisfactory condition, and when open hostilities or a very precarious condition of peace existed among more than half the Indians of the country. That the conclusions thus reached by military officers of the rank and experience of Generals Sherman, Harney, Terry, and Augur were safe and wise, the experience of the last seven years has fully demonstrated. And if the civil arm of the Government was best adapted to the work required then, it is difficult to see how it can be otherwise now, when, with the exception of a portion of the Sioux Indians in Montana and Dakota, and three or four thousand vagrant Utes and Apaches in New Mexico, the whole Indian population is quiet, and, except under the most blundering and grossly unjust treatment, will cause no apprehensions of war or serious difficulty hereafter. At five-sixths of the Indian agencies no soldier is ever seen or needed. At one-half of the remainder, soldiers are only required to act as a posse to assist the agent in making arrests of turbulent men; and even this posse could be much more cheaply and efficiently provided by dispensing with soldiers and increasing the force of United States marshals wherever needed for the control and discipline of Indians. So far, then, as eleven-twelfths of the Indian agencies are concerned, the question of putting them under the control of the War Department has no more pertinency than that of putting the alms-house and city schools under the metropolitan police. A standing army and an ordinary Indian agency have no common end in view. On the contrary, whenever it is at all possible to control the Indians without force, the purposes sought to be accomplished under a policy of civilization are always materially hindered by the presence and example of soldiers. The first lesson to be given the Indian is that of self-support by labor with his own hands—the last lesson which a man in uniform teaches. But more, and above all, the inevitable demoralization of intemperance and lewdness which comes to a reservation from a camp of soldiers makes it of the highest consequence that the connection of the Army with the Indians be kept at the minimum consistent with their necessary control and the safety of the frontier.

For the wilder tribes who cannot yet be controlled, except either in the presence or under the fear of cavalry and infantry, the question has a somewhat different aspect. If there are any tribes, or portions of a tribe, of whose civilization the Government for any reason despairs, and whom it is proposed merely to corral and ration from this time on until they cease to exist, their transfer to the War Department is eminently fit and desirable. But if it is proposed at some time and by some means to bring these wilder tribes out of barbarism into a condition of self-support, then the present condition of control by civilian agents, if abandoned for purposes of discipline through the military, must be resumed as soon as the Government is ready to pursue its main end in the management of Indians; and, in my judgment, owing to the entire incompatibility of the methods and teachings of the Army with this civilian service, I should regard it far better to continue even the wild tribes under the control of the civil agent and arrange for the required discipline and restraint by a hearty and thorough co-operation on the part of the military.

The difficulty which this Bureau has experienced heretofore in dealing with Indians of this class in connection with the military service has arisen quite largely from the unreadiness of Army officers to furnish a force to act merely as a posse to a civil agent, and the want of acquaintance on the part of the agents with the requirements of military routine and regulations. This source of friction, however, among officials at the front is not serious, and can be largely overcome by the cultivation of a spirit of forbearance and by the common purpose of their superior officers, both military and civil, to bring the whole service of the country to its highest condition.

There is, however, a sphere of service now undertaken by this Bureau which might, to its great relief, be transferred to the War Department. The supplies of clothing and subsistence required to be purchased for the Indian service amounts to about $2,000,000. Much the larger portion of this sum is expended in purchasing for the Sioux and several other tribes a few articles in large amounts. The Indian Bureau has never had an adequate appointment for making such large purchases and for transportation of the articles to the distant parts of the country. The Quartermaster and Commissary Departments of the Army have such appointments in complete organization, through which the War Department would be able to purchase, inspect, and transport the goods and supplies required to subsist Indians, and fulfill the treaty obligations, with much more regularity and system than is possible for this Bureau as at present organized; and while a comparison of purchases made by the Army with those made by the Indian Bureau of the same article at the same place does not indicate that the transfer will on the whole tend to economy of funds, but rather otherwise, it will yet tend to allay suspicion, and will furnish checks and tests for ready application, whenever charges of fraud in the service are made, either on good grounds or for partisan or selfish purposes, or by persons of repute and acting in good faith, who are themselves victims of such purposes on the part of others. If it shall be deemed advisable to transfer this portion of the service to the War Department, rather than to furnish the additional clerical equipments necessary for its proper administration in the Indian Bureau, I would respectfully recommend for the consideration of the honorable Secretary the procurement of such legislation as will allow the President in his discretion to direct that any portion of this service of buying and transporting Indian goods and supplies be performed by the War Department. But, if the transfer suggested is made without lodging this discretionary power in the President, it should be limited in its operations to the purchasing and forwarding of supplies, of which the value of any one class of article at any one agency shall exceed the sum of $1,000. This limitation is quite important in order to allow the disbursement through the agents of such limited amount of funds as may be required in purchase of articles for immediate use, in cases where delay would be damaging to all interests concerned.

DEFICIENCIES.

Owing to inadequate appropriations, deficiencies have occurred in greater or less amounts annually. The largest deficiency was found in the appropriations of 1873 and 1874, of which there is a balance still remaining unprovided for, amounting to $495,001.23, for which the estimate submitted to the last Congress failed to receive action by that body. During the same year, $751,418.82 was covered into the Treasury as a surplus fund, not being applicable to meet the class of liabilities for which the expenditures creating the deficiency were made.

The existing deficiency is mainly composed of comparatively small sums, due to a large number of individuals for supplies or services actually furnished on the order of the agents of the Department. There is no dispute as to the justness of the accounts of these claims, and the failure to provide for their payment will be a perpetuation of hardships. The affairs among the Sioux, developed by the events of the year, have necessitated an unexpected expenditure, which will require to be met by a deficiency appropriation. The sum of $1,100,000, appropriated for their subsistence, is not sufficient to give them bread, meat, coffee, and sugar, and make suitable provision for transportation and issuing of the supplies at the seven different agencies. Possibly, if only beef and flour or corn were furnished, this sum would support life for them; but the cutting off of bacon, coffee, and sugar would be made the occasion of great complaint by the Indians. I have endeavored to reduce these luxuries for the Sioux to the minimum which their demands and the complaints of their friends would allow, and expected to be able, by subsisting the Indians on beef, to carry them through the year, by supplementing the amount appropriated for their subsistence with their beneficiary fund of $200,000; but the cession of the Black Hills has made an exigency which has involved the Department in a considerable outlay, which requires to be met by a deficiency appropriation. The cost of the very satisfactory geological and topographical survey, and the expense of the negotiations for the cession of the Black Hills, including the presents to the Indians, together with that of the Red Cloud investigating commission, have caused an unexpected expenditure of nearly $75,000, which will require to be met by a deficiency appropriation. From the best judgment I am now able to form, all other deficiencies for the present year will not exceed the amount which will be saved to the Government by being carried to the surplus fund.

THE BOARD OF INDIAN COMMISSIONERS.

The relations of the Office to the Board of Indian Commissioners have been entirely co-operative, and of material benefit and assistance in promoting economy and efficiency to the service. The suggestions of the Board, made on information derived by them by personal visitation of agencies, and other sources, have enabled the Office to act with a better understanding upon important questions involving large interests of the Indian and heavy expenditures by the Government. The daily attendance of the purchasing committee, and other members of the Board, during the opening of the bids, and the awarding of contracts for annual supplies, and the delivery and inspection of goods, enabled the Office to purchase and enter into contracts for articles desired amounting to over $2,000,000, at reasonable and entirely satisfactory rates. There can be no question but that for the superior quality of goods, and for the low rates at which they were procured, the Office is indebted to the great care and personal attention of these gentlemen, who serve the Government without pay. In my judgment, the full amount appropriated for the expenses of this Board has been saved many fold by the service which they have rendered gratuitously. The relation of the Board of Indian Commissioners to the General Government is somewhat anomalous; but when the peculiar mission of the Indian Bureau is considered, it will be seen that the function of the Board is important, if not essential, to the successful workings of a Bureau, in whose operations the social, humane, and moral questions involved render its mission unlike that of any other branch of the public service, and requiring other care and consideration than can be given by ordinary official routine.

CO-OPERATION WITH RELIGIOUS BODIES.

It is with great gratification that I record the hearty good-will with which the several religious bodies of the country have in general aided the work of civilization during the year, and the close relations of confidence and co-operation which have existed between them and the agents nominated by them and this Office. The advantages derived from the nomination of agents by religious bodies are manifest on every hand. It secures a better class of officers than could be had by political nomination; it brings to the aid of the Government the sympathies and co-operation of a large number of the best citizens of the country; it enlists a kind of aid for which the Government has no substitute, and without which all effort for civilization will drag heavily until it is abandoned.

No movements for changing the character and habits and prevailing condition of a people or a class can attain anything worthy the name of success without calling for the help which a volunteer benevolent or religious organization outside of the Government alone can give. The Sanitary and Christian Commissions of the war, Prison Associations, Children's Aid and other Relief Societies, and the multitude of benevolent organizations which the Government and the States call to their aid whenever any work of humanity or recovery of man is to be undertaken, bear abundant testimony to the prevailing opinion on this subject which has grown out of experience.

Indian civilization presents a complication of questions and difficulties which require to be studied from a point of view entirely different from that which any routine official administration of the Indian Bureau can give. The agents who have the work in immediate charge must be more than Government agents. They must be filled and animated with a personal interest in their work, and inspired by the constant feeling which comes from the consciousness of being an associate and representative of those who are cheerfully contributing time and thought and making personal sacrifices for the work he has in hand.

No desire for church-propagation on the part of any religious denomination, with one exception, has in any way interfered with the purposes of the Government, and such interference on the part of the Roman Catholics has arisen evidently not from intent to produce such effect, but from the incompatibility existing between a strict adherence to their religious system and any provision for public schools other than those taught by themselves.

At the seven agencies assigned to the care of the Catholics, no restriction has been placed upon their system and methods of education, and no other religious body, so far as am aware, has in any way attempted to interfere. I regret to say that this is not true, so far as the Catholics are concerned, of some of the agencies assigned to other religious bodies, and in some instances the interference has been a material hinderance to the efforts of this Office through its agents to bring Indians under control, and to enforce rules looking toward civilization.

INDIAN CIVILIZATION.

The question of Indian civilization is deeper and broader than is to be found in the inquiry and answer as to whether an Indian can be civilized. The question in that form has been long since answered, and the only form remaining, which is of practical interest to the American people, relates to the methods which are essential to any extended and

successful effort for that end. I believe that the present unsatisfactory condition in which Indians of this country are still found, notwithstanding the large and increasing outlays of money which the Government has been making for a half-century, is due to the fact that by far the largest portion of the expenditures have been made with no practical reference to the question of civilization. An annuity in money or blankets, or bacon and beef, may have a tendency to draw the Indians within the reach of the Government, and prepare them for the beginning of a work of civilization, and also to render them disinclined to take up arms and go upon the war-path. But with any tribe a few years of this treatment is sufficient for the purpose, and after this end has been gained, a continuation of the feeding and clothing, without a reference to further improvement on the part of the Indians, is simply a waste of expenditure. This has been the case with a large portion of the money spent upon Indians during the last fifty years. It is true that the letter of treaties may have been complied with by such expenditures, and thus the credit of the nation saved in form. But the spirit of the treaties, which uniformly looked toward the civilization of the Indians, has been disregarded, in that no reasonable methods have been devised and adopted for promoting civilization. This is manifest from the fact that the question has not been raised as to whether an Indian should be subjected to a system of enforced industry, and no plan has been devised looking toward his elevation, by bringing to bear upon him the ordinary motives of industry, which are found in the responsibilities that attach to self-support and individual manhood.

This negligence or long-continued disregard of the main question relative to Indians has largely resulted from the theory adopted from the beginning as to the political status of Indians. They have been treated as if capable of acting for themselves in the capacity of a nation, whereas all history shows no record of a tribe, within our republic, able to assume and continue the character and relations of a sovereign people. There may have been a reason in the weakness of the early colonies, and far superior numbers of their Indian foes, for recognizing this condition of Indian sovereignty. But that has long since passed away, and there is no longer any occasion for recognizing the tribes who remain with us as foreigners. Their own interests, more strongly even than those of the Government, require that they should be recognized and treated for what they are, an ignorant and helpless people, who have a large moral claim upon the United States—a debt which cannot be discharged by gifts of blankets and bacon, or any routine official care for their protection or relief. These are trifles compared with the one boon—civilization—which every consideration of humanity requires that we should give them. We have taken from them the possibility of living in their way, and are bound in return to give them the possibility of living in our way—an obligation we do not begin to discharge when we merely attempt to supply their wants for food and clothing. They need to be taught to take care of themselves. If any demonstration of the feasibility of this teaching is required, there are very few Indian agents now in the service who cannot, each out of his own experience and observation, furnish facts remarkably conclusive on this subject. An Indian is subject to like passions with the rest of us. So long as he can be subsisted by rations or by the chase, he will not labor; so long as he declines to labor, he cannot take the first step in civilization. The call to labor must come to him, not through memorials or treaties, councils or presents, but through his necessities. He must be driven to toil by cold and the pangs of hunger. Then, when he has taken this first step

toward self-support, his wants, which at the beginning were registered only in his stomach, take on multiplied forms, and urge to increased industry. Naturally, when a man begins to toil for that which he receives, he begins to learn the value of personal-property rights, and thus takes the first step in separating from his tribe, and toward individual manhood.

Congress, at its last session, recognizing the propriety that Indians, like other people, should toil for what they have, directed that all annuities should hereafter be paid only in return for some form of labor, giving, however, to the Secretary of the Interior discretion which allows the exemption of certain tribes from the operation of this restriction. This eminently wise legislation has been of great avail to the Bureau during the year in enforcing industry. While in some cases it has excited hostility and produced slight disturbance, it has on the whole worked with eminent satisfaction.

The question has been raised by the Indians, and sometimes by their friends, as to the right of the Government to compel them to labor as a condition antecedent to receiving that which the Government has promised to give them, and without any such restriction being named in the promise. But when it is recollected that the Indian actually receives that which the Government has promised him, and enjoys beside the benefit of all the labor he performs, not only in its moral effect in promoting habits of industry, but also in the improvements made and crops raised, there can be no hesitation as to the positive benefit conferred upon the Indian by holding him to this restriction in the enjoyment of his funds; and when it is remembered that the Government has upon its hands the care and support of these Indians, not only for the brief period covered by their treaties, but until they shall be able to care for themselves, it will be seen that the interests of the Government, as well as those of the Indian, require that whatever expenditure is made in his behalf shall be so made as will tend most rapidly and certainly to his civilization. For this reason I would most respectfully recommend that the restrictions placed upon appropriations for annuities for Indians by the last Congress be hereafter continued, and that the discretion of the Department as to releasing any tribe from its operations be reduced to the minimum which the proper handling of wild Indians who cannot be at once reduced to labor will allow; and also that authority be given to expend a necessary portion of annuities in preparing the ground for Indian labor and the purchasing of seeds and implements and stock-cattle. There have been several instances where an agent has been unable to put his Indians to labor because they had no land plowed and nothing but their hands to work with, and yet they would not consent that any of their cash annuity should be expended in these means of labor.

All attempts to require labor as a condition of receiving annuities will meet with much opposition. The Indians will resist it from their constitutional disrelish for toil. They will also be incited to such resistance by half-breeds and squaw-men, traders, and other interested parties, who always turn up as champions for the rights of an Indian whenever any measure is proposed which threatens to disturb their peculiar relation as his next friend, and entitled to hold his money and divide his annuity-goods.

As the means of enforcing civilization become more available, and the necessity arises to compel Indians, through the moral suasion of hunger, to do that which they dislike, it will be found necessary in many instances to rid agencies of the interference of this low class of whites by expelling them from the reservation. There is no reason why the

Government should continue to clothe and feed any class of men who are able to shift for themselves, and especially does such obligation cease toward men who persist in making the terms of a treaty their pretext for thwarting the purposes of the Government and retarding the civilization of its wards. A law providing for their summary ejection and punishment for their subsequent return would relieve many a reservation from great embarrassment.

ECONOMY OF CIVILIZATION.

But the adoption of these methods does not by any means secure civilization. It merely prepares the way for a rational effort in that direction. Three essential conditions still require to be met.

First, that the Indians should be placed or allowed to remain in a country affording water, timber, grass, and a soil upon which a white man could make a living. In the warm and dry climates, ordinary facilities for irrigation are sufficient.

Second, the necessary funds must be provided to carry the untaught barbarian through the period of his childhood in civilization. This childish ignorance requires much patient and expensive teaching. The farmer or mechanic who is to be his instructor, needs to be more than an ordinary man of that calling, and must receive suitable compensation. No view can be more short-sighted than that any common laborer will make a profitable employé upon an Indian reservation. But under the best of teaching there will necessarily be large expenditures in the first steps in agriculture or herding. Awkwardness is wasteful. No man learns to take responsibility and care except by experience, and this with an Indian comes at high rates. The first cow or yoke of oxen intrusted to his care will quite likely be rendered valueless by mismanagement, or eaten in stress of hunger, and you may be obliged to repeat the aid in several forms before you will have an Indian farmer capable of providing for his stock. There were purchased seven years since for the Winnebago Indians in Nebraska 307 cattle. For three years they were kept by the Government at large expense, under the care of farmers and herders, when it was decided to issue them to the Indians, and thus save at least the expense of keeping, which amounted annually to the value of the cattle. But few of these cattle are now remaining among the Winnebagoes. They have died for want of care, or have been eaten by their owners; but in this process, expensive as it has been, the Indians have learned the value and care of cattle, and are now receiving a new supply, purchased by their own money, and are giving them the treatment requisite for protection and increase. In the erection of houses upon a reservation, it will be more expensive to attempt to utilize the rough labor of an Indian than to hire white labor, but the house is worth tenfold more to him, not only for the increased interest with which he will always regard it as the work of his own hands, but for the lesson of labor which its erection has afforded him. In the same manner a plow or wagon broken in the Indian's experiment of his first useful exercise of muscle, is a costly expenditure, and yet experiments which involve these and more serious outlays, are in the end highly economical.

For this comparatively brief training-period larger annual appropriation will be required than if the Indian were allowed to continue his life of vagrancy and barbarism. The cost of furnishing school-houses and teachers in a commonwealth will be considerably greater in any five years than to allow the children to run in idleness and ignorance during that period. But before that generation of children has come to manhood, the cost for police and punishment will be many times

greater than the sum required for their proper education. In like manner a discussion of the question of comparative economy in the civilization of Indians must not fail to count the cost of the alternative. When settlements approach an Indian country, this uncivilized class comes into new relations with the Government. If they are allowed longer to roam, they will be a heavy expense either to the people, by marauding, or to the Government, by the maintenance of a sufficient military force to prevent or punish such marauding. The Territory of Arizona presents a striking illustration of the economy of civilization. By the combined efforts of the War Department and the Interior, the fierce, bloody Apaches, who three years ago were the terror of that Territory, making a twenty-mile ride out from its capital unsafe without a guard, are now in quiet upon their reservations, and, with the exception of a small number, followers of Cochise, who as yet occupy the Dragoon Mountains, are digging ditches for crops, and making adobe dwellings. Meanwhile, the country is freed from hostile incursions, and the Government is enabled to reduce the military force hitherto required for peace and safety in Arizona. The cost of maintaining this half of the military in Arizona for a single year exceeds all the expenditures by the Indian Bureau for all the Apaches in that Territory for four years past, and from this time the expenditure will annually decrease until the Apaches become entirely self-supporting.

Third. The agents who stand for the Government in close contact with the Indians must be competent for the business in hand. They must be able to comprehend how far it reaches beyond the mere attempt to gratify the Indians or to keep them quiet. They must be men who have faith in their fellow-men, who believe that the lowest creature God has made is capable of coming up higher. They must be not only strong in integrity and able to resist the plots and machinations by which greedy and unscrupulous men will seek to use them, but they must also possess such administrative ability as will enable them to bring all their personal and official power to bear in restraining and curing vicious habits and inspiring high motives and aiding feeble beginners in a better life. Men of this character are not to be found in the ordinary way of political appointment. Their selection must be made on no other ground than that of fitness for their peculiar duties. A mistake here is fatal to the whole effort. For this reason the mode adopted for the last few years, of procuring nominations of agents through the several religious bodies of the country, has worked most admirably. Not that the best men have always been selected by those bodies, but that the proportion of true, devoted, capable agents furnished in this way has been far greater than it would have been by any other method of appointment. When these agents thus selected have reached their distant fields of duty, they find, in the relations which they bear to the Christian people whom they represent, a constant inspiration to fidelity. Any man fit to receive such an appointment must constantly recognize the duty upon him to be true, not only to the Government, but to his own religious convictions, and to those in whose name he has been sent to engage in the work of lifting men out of barbarism. And it is exactly this element of enthusiasm which comes from living for an idea, from the purpose and consciousness of living for others, which is most essential to the effort of civilization among Indians. For this reason I most devoutly trust that the Government will still be inclined to call upon the religious bodies of the country to name the proper men for Indian agents.

With these three essential conditions, suitable country, reasonable appropriations and proper agents, supplied and continued for a reason-

able length of time, there is not a shade of doubt, in my mind, that the Indians of this country can be reclaimed from barbarism and fitted for citizenship, and that every year, from the time of its adoption till its consummation, will give increased demonstration of the wisdom and ultimate success of the plan. But it must be borne in mind that all these conditions, namely, men, country, and funds, relatively important in the order named, are absolutely essential. If one of them is lacking, the highest excellence of the other two cannot repair the loss. You cannot civilize the Sioux on the alkali plains of Dakota with any amount of funds and the best of agents. You cannot civilize the Otoes on the best soil in Nebraska, with their large per capita annuity, without an agent capable of his high trust. You cannot civilize the Lac Court Oreille Chippewas in Wisconsin, on their fine reservation, and with all the encouragements which a competent sub-agent can give, without the means necessary to provide for their first steps in civilized labor.

It surely is not too much to expect that a work of such magnitude, involving, as it does, the welfare of so many poor who in all their history have stood in such peculiar relations to the American people, and who are now attracting the increasing interest of philanthropists and scholars and the commiseration of all classes, shall obtain such recognition by the Congress of the United States as will remove the difficulties which have heretofore been experienced in procuring the enactment of laws and the necessary appropriations for their training in civilization.

The following table shows the annual appropriations, including deficiency and special appropriations, of each year since 1870, and the disbursements for the corresponding years, together with the funds derived from interest on Indian stocks and sales of bonds and lands and turned over to the Indians or expended for their benefit. This table shows the largest amount to have been expended in 1873, which was the uncertain period as to the number of the Sioux and the year in which the Apaches and other wild tribes were being gathered upon reservations in Arizona and New Mexico.

Statement of appropriations by Congress, and the disbursements therefrom, during the fiscal years 1870 to 1876, inclusive; also the disbursements from interest collected on Indian trust-funds, from proceeds of sales of Indian lands, and of bonds sold for the benefit of various Indian tribes, and, also, of amounts carried to the surplus fund.

Fiscal year.	Amount appropriated by regular, deficiency, and special appropriations.	Amount disbursed.	Amount disbursed from interest collected on trust-funds; from proceeds of sales of lands, and of bonds sold for the benefit of various Indian tribes.	Amount carried to the surplus fund.
1870	$6,132,616 00	$2,879,791 75	$380,892 23	$91,992 33
1871	5,960,337 12	6,361,085 88	589,690 85	38,326 13
1872	5,970,527 56	6,519,103 08	405,370 84	494,291 21
1873	7,160,073 46	7,414,142 12	373,532 83	174,256 49
1874	6,912,384 79	*5,440,318 46	735,990 70	84,986 79
1875	6,036,766 79	(a) 1,417,481 02 6,282,906 20 (b) 148,288 73	661,011 80	751,412
1876	5,435,627 00	(c) 2,464,072 91	316,748 12	.....
Totals	43,608,332 72	38,899,190 15	3,613,237 37	1,653,343 67

* A deficiency of $495,001.23 for 1874 is still unprovided for.

(a) Disbursed in the fiscal year 1875 from deficiency appropriation for the fiscal year 1874 and prior years.

(b) Disbursed in the fiscal year 1875 from appropriations for the fiscal year 1876.

(c) Disbursements from July 1 to November 1, 1875, from appropriations for the fiscal year 1876.

The expenditures of the year 1875, exclusive of expenditures of funds derived from interest of Indian stocks, and sales of bonds and lands, as compared with those of 1873, show a decrease of $1,002,947.19. The appropriations for 1876 are $5,435,627, and from present prospects it is confidently expected that the deficiency for this year will not exceed $200,000, making a total of $5,635,627, and a diminution of $1,524,446.46 against the cost of 1873. This reduction of expense has occurred party by increased cheapness of supplies and decreased cost of transportation; but mainly by the definiteness with which numbers and wants of Indians have been ascertained, whereby waste and overissue of supplies have been in a degree prevented.

The cost of maintaining all the Indians, except the wilder tribes, like the Sioux, Utes, Crows, and Arickarees, will steadily decrease from this time on until they cease to be any burden to the Government; and this not through any process of extinction, but because of their increasing self-support in a civilized mode of life.

It is not improbable, however, that such additional expenditure will be required in bringing the wilder tribes through the transition from a state of almost complete barbarism into the beginning of civilization as will make the totals of appropriations for three or four years to come equal to those of the last three years, and perhaps greater.

The problem of the Sioux, as discussed elsewhere, involves even larger outlays for at least three years than are now required for the feeding process. The Sioux on the Upper Missouri, with the Piegans and Blackfeet, who are now procuring much the larger portion of their subsistence by hunting, will, before long, be compelled by scarcity of game to depend upon Government rations. When this necessity comes to them, and to the Crows and Utes, the change from a nomadic to an agricultural life, which must necessarily follow, will bring the temporary necessity of a corresponding increase of appropriations. These are the exigencies or the crises which come in the history of all tribes; and the fact that the cost of maintaining Indians is growing less, notwithstanding there are more of them upon reservations and under the immediate care of the Government to-day than ever before, is most instructive as well as encouraging. And if it were possible to show in figures the increased advantages which have been derived from the comparative quiet upon the border, and exemption from pillage and marauding, and the very marked decrease in expenditures incurred in campaigning against the Indians, a most gratifying exhibit could be made of economical results already accomplished.

A sum equal to the cost of fighting only a small portion of the Sioux, in 1862, if funded at 7 per cent., would yield an annual interest sufficient, even on the present unsatisfactory plan, to care for the whole Sioux people for all time.

It should also be remembered that we might naturally have expected an increase instead of a diminution in disturbance and depredation on the part of the Indians, with a correspondingly increased cost for police and restraint by the Army, on account of the growing settlements which have pushed their way on every side, up to the border, and sometimes into the very heart, of the Indian country.

Before yielding to any despondency or doubt as to the future, even of the most hopeless tribe, it is well to recall the fact that only seven years ago the United States was willing to make any promise to the wild Sioux, whom we did not wish to fight, if they would allow us to push a railway across their plains toward the Pacific coast. Five of the wisest and bravest leading generals of the

Army did not consider it derogatory to the dignity of the Government to solemnly stipulate, in order to gain this end, that the larger part of Dakota, Nebraska, and Wyoming, claimed by the savages, should never be trodden by a white man's foot; that military forts and roads should be dismantled and abandoned; that no man wearing the United States uniform should ever be seen within their reservation; the Indians should receive large supplies of rations and clothing, and that these stipulations should never be altered by a subsequent treaty except on the written assent of three-fourths of the male members of the nation.

The trains on the Union Pacific roads have been running daily undisturbed; the surrounding country has been occupied, while Indian depredations have greatly decreased. The lands in Nebraska are now being occupied by settlers, the Indians having withdrawn their claim; soldiers are to be found in every part of the Sioux reservation, and the present season has witnessed thousands of miners and "pilgrims" swarming over the Sioux country, and digging into their sacred hills for gold. Yet there has been no fighting, under all this provocation, which, five years ago, would have brought ten thousand painted savages into the field for a war which would not have cost less than fifty millions. And with any kind and firm treatment, which bears a resemblance to justice, there will be no serious contention with this powerful tribe hereafter. The results have therefore fully justified the negotiations of 1868, and have demonstrated most completely that it is far better to feed and temporize and parley with a wild, unreasoning savage, until you have brought him within authority and proper requirements, so that he may be assured, from experience, that the Government on the one hand desires only his good, and on the other is able to compel submission to law.

LEGISLATION RECOMMENDED.

Seminole negroes.

There are on and in the neighborhood of the military reservations of Forts Clark and Duncan, on the Texas border, about 500 persons of African descent, who are known as "Seminole negroes," sixty of them men and grown boys, the remainder women and children, who, being in a very destitute condition and in an inhospitable country, are a care upon the Government. These negroes were transferred with the Seminole Indians from Florida to the West as a part of that tribe. They were induced to return to Texas from Mexico, whence they fled to escape bondage. By the 2d article of the Seminole treaty of March 21, 1866, (vol. 14, p. 756,) it appears that these negroes have an equitable right to be located on the reservation, in Indian Territory, set apart for the Seminole Indians, and there can be no question as to the humanity and economy of such location. Recommendation is therefore made that these Seminole negroes be collected and removed to said Seminole Indian reservation in Indian Territory, and there permanently located, and that the sum of $40,000, or so much thereof as may be necessary, be appropriated by Congress at its next session to effect such removal.

Pawnee removal.

Provision was made by the act of Congress approved June 10, 1872, for the survey and sale of a portion of the Pawnee Indian reservation in Nebraska. Since the survey hereby authorized these Indians have been in a restless and unsettled condition, which was further increased by the failure of their crops from grasshoppers and drought.

With a view to the ultimate removal of the whole tribe from Nebraska, the agent and a delegation of the tribe were authorized to visit the Indian Territory, and make selection of lands for a new reservation of the tribe. In accordance therewith, they made the visit, and selected lands lying in the forks of the Arkansas and Cimarron Rivers, east of the 97th degree of west longitude, embracing about 391,000 acres, and on the 4th of March last signed an agreement to adopt said tract of country as their new and permanent home. This selection has been approved by this Bureau, and is embraced within the following boundaries: Commencing at a point in the middle of the main channel of the Cimarron River, where the 97th meridian of west longitude crosses the same; thence north on said meridian to the middle of the main channel of the Ark ansas River; thence down the middle of the main channel of the Arkansas River to the mouth of the Cimarron River; thence up the middle of the main channel of said Cimarron River to the place of beginning. The main body of the tribe has already removed, and a most encouraging beginning has been made in their new homes.

Recommendation is made that Congress at its next session ratify the selection made, and take the necessary action to permanently establish the whole Pawnee tribe thereon, by providing for sale of their lands in Nebraska and appropriating a sum, to be re-imbursed by such sales, sufficient to provide for the expenses of removal already incurred and to carry them through the coming year.

Lapwai suits.

In the matter of the ejectment-suits of W. G. Langford *vs.* Employés of the Nez Percé Indian reservation at Lapwai, Idaho, certain expenses of rent, costs, and fees were incurred by said employés in their defense at the trial of these cases, amounting to $625.75. This expense was necessarily incurred, owing to the remote distance of the proper United States district attorney from the agency, as well as difficulty of communication with him or the Department, and the exigencies of the case, which have been promptly and fully reported to this Office. From these facts and the circumstances of the parties who were mulcted with the costs, and in view of the fact that by this course they were enabled to hold the agency buildings, and thereby avert their destruction by the Indians, Congress should be urged to appropriate the necessary amount to fully re-imburse the parties named.

Red Cliff.

By the sixth section of the second article of the treaty of La Pointe, made September 30, 1854, four sections of land, known as the Red Cliff Indian reservation, were set apart for the use of a certain La Pointe band of Chippewa Indians, of which Buffalo was chief. The fourth article of the said treaty authorizes the allotment of lands and the issue of patents therefor. This reservation was enlarged in 1856, by the order of the President, by the addition of nearly eighteen sections of land. Legislation by Congress is now asked authorizing the allotment of the land embraced within the extension made by the President and the issue of patents therefor upon the terms named in the treaty aforesaid.

Sisseton and Wahpeton Sioux.

The fifth article of the treaty concluded with the Sisseton and Wahpeton bands of Sioux Indians February 19, 1867, provides: "* * * Every

person to whom lands may be allotted under the provisions of this article, who shall occupy and cultivate a portion thereof for five consecutive years, shall thereafter be entitled to receive a patent for the same so soon as he shall have fifty acres of said tract fenced, plowed, and in crop. * * *" (Vol. 15, p. 506.)

Recommendation is made that legislation be adopted by Congress at its next session authorizing the issue of a patent to each allottee, when said allottee shall have *twenty-five* acres of said (his or her) tract fenced, plowed, and in crop, instead of fifty acres, as required by the treaty.

Ottawa land.

Upon the establishment of the boundary-line between the Peoria and Ottawa Indian reservations in Indian Territory, determined by the recent survey, a strip of country, containing 230 acres of land, which had formerly been used and held by the Peorias as a part of their reservation, lies now within the limits of the Ottawa reservation. At the suggestion of the Ottawa Indians, this tract of land was purchased and paid for by the Peorias, and it is now recommended that the legislation necessary to perfect the purchase of said land be had by Congress at its next session.

Pyramid Lake reservation.

By an order of the President, dated March 23, 1874, a certain tract of country therein described, in the State of Nevada, which had been held and used for a number of years for Indian purposes, was set apart for the permanent use and occupancy of the Pah-Ute Indians, and known as the "Pyramid Lake Indian reservation." A portion of this reservation is covered by the grant to the Central Pacific Railroad, as provided in the act of Congress approved July 2, 1864. (Stat. at L., vol. 3, p. 356.) Negotiations have been opened with the railroad company respecting the purchase of the company's interest within said reservation. No public survey has been made of the lands in question, which the railroad, through its land-agent, is willing to sell at the usual rate for such lands, or to exchange for other lands in lieu thereof. It is recommended that legislation by Congress be had at its next session authorizing the exchange of these lands for other lands, and preserving this reservation intact with boundaries as established by the order of the President, inasmuch as these Indians have held it in undisputed possession so long a time, believing the entire area to have been legally withdrawn from sale as their home, upon which they have made considerable improvements.

Swamp-lands in Wisconsin.

The treaty of September 30, 1854, with the Chippewa Indians of Lake Superior makes reservation for the La Pointe band of those Indians of a tract of country, the boundaries of which are therein defined. This treaty also provides for an allotment of lands in severalty to certain members of the band and the issue of patents therefor. Allotments have already been made to a large number of those residing upon the reserve, and it is now ascertained that a considerable quantity of the lands within the reservation limits have been declared swamp-lands, to which the State of Wisconsin is entitled under the swamp-land act of 1850.

These swamp lands include the tracts allotted to twenty-five or more of the Indians, in severalty, and comprise some of the most valuable

hay, rice, cranberry, and garden lands within the reservation, and upon which a large proportion of the most valuable improvements made by the Indians are located. I earnestly recommend that legislation be asked of Congress, giving to the State of Wisconsin an equal quantity of public lands in lieu of these swamp lands, located elsewhere within the limits of said State, or that provision be made for otherwise indemnifying the State, and that their reservation be preserved intact for the Indians, inasmuch as they have been encouraged for twenty years to believe that these lands belonged to them, and that when allotments should be made in severalty they would receive patents therefor. Relying upon the guarantees contained in their treaty, they have made extensive and valuable improvements, and should they now be deprived of both their lands and improvements, it would be a very great hardship, and one that should be prevented if possible.

Sale of Indian lands in Nebraska.

The act of Congress approved June 10, 1872, having provided for the sale of portions of the Omaha, Pawnee, Otoe, and Missouria, and the whole of the Sac and Fox of the Missouri Indian reservations, on sealed bids, for cash, an appraisement was made of the Omaha and Pawnee, which received the approval of the Secretary of the Interior, and the Omaha lands were offered for sale last year. The bids were very few in number and for small tracts, so that awards were only made of 300.72 acres. It was deemed inadvisable to again offer the lands upon the same terms, and therefore, on the 10th of December, 1873, the Department submitted to Congress the draught of a bill to amend the act of June 10, 1872, the object of which was to provide for the sale of any of the lands described in said act, at not less than the appraised value thereof, on the following conditions, viz, one-fourth cash in hand, the balance in three equal annual payments, drawing interest at 6 per cent. per annum from the day of sale; the purchaser to give bond with adequate security to commit no waste or damage, by the sale or destruction of timber, or otherwise, until the last payment should be made. Congress at its last session failed to enact the foregoing bill into a law, and no further steps have been taken toward carrying out the provisions of the act of June 10, 1872. The Pawnees have removed to the Indian Territory south of Kansas, and have expressed the desire in open council, under date of October 8, 1874, that their entire reserve in Nebraska should be sold. A bill was submitted to Congress embodying this proposed provision, and such legislation relative to the disposition of the remaining reservations named in the act of June 10, 1872, as was deemed advisable and proper. No final action was taken by Congress, but as the same reasons exist now as formerly, I think it important that this subject be again presented to Congress.

ASSISTANCE RENDERED BY MILITARY FORCES.

The aid rendered by the War Department in enforcing discipline and compelling Indians to remain within their reservations, has been of great service during the year. The campaign against the hostile Cheyennes and Comanches, which was mentioned in my last report as probably near its close, continued with occasional skirmishes until March, when the last of the hostiles came into the Cheyenne agency and surrendered; but, unfortunately, during the selection and identification of the ringleaders for punishment by confinement at Fort Marion, a stam-

pedo occurred, in which the whole camp of surrendered prisoners broke away, after a severe engagement with the military. About four hundred of them made good their escape through Kansas and Nebraska to Red Cloud agency, where they have, up to this time, eluded pursuit by the military, and have formed a most troublesome element in connection with the northern Arapahoes and Cheyennes, and a turbulent portion of the Red Cloud Sioux. With this exception, the campaign against the hostiles of the Indian Territory was most successful and beneficial; the punishment which has been visited upon the seventy of the ringleaders in marauding, by confinement at a military post in Florida, is proving most salutary upon the tribes whom they represent. A few marauding Osages have been driven in upon their reservations, and troops have been asked to assist in the arrest of their ringleaders. The military force at Red Cloud and Spotted Tail agencies has been sufficient to prevent bloodshed, though at times the peril of an outbreak has seemed imminent. The escort to the geological survey of the Black Hills, under Colonel Dodge, made that survey successful. Soldiers have also been used for the arrest of Sioux offenders at Standing Rock.

In August last, the agent at Spotted Tail requested the aid of the military in expelling troublesome, vicious whites, known as squaw-men, who live among the Sioux and excite them to turbulence. This request, though indorsed by the Department, has not yet procured the desired assistance in ridding the agency of a mischievous element. In Minnesota, a small military escort was sent to arrest four turbulent pillagers, Chippewas, at Leech Lake, west of the Rocky Mountains. Military aid has been invoked to protect the Nez Percé agency from attempted seizure by W. G. Langford, under the claim of ownership. Troops have also been put in motion in Nevada, on account of great alarm by the citizens, caused by the murder of a white man by an Indian whom he had dispossessed of his land. The alarm proved, in a large degree, without foundation, and no interference of the soldiers was found necessary. In New Mexico, the military at Fort Stanton were called upon to protect the Mescalero Apaches, but were not able to prevent their massacre by whites on their own reservation, and within sight of the flag-staff of the military post. At the Navajo agency, military aid was sought, but not secured until all need for it had passed. In Arizona, want of co-operation between post-commanders at Camp Apache has rendered the immediate aid of the military of very little value during the year. The fact of the presence of troops within the Territory has, however, exercised a moral effect, of which agents have availed themselves in keeping order without calling for actual interference by the soldiers; and there is little doubt that Sitting Bull and his followers among the northern Sioux have been restrained from overt acts by the fact of military posts being stationed on the Upper Missouri.

PRIVATE CLAIMS FOR DEPREDATIONS BY INDIANS.

The attention of the honorable Secretary is called to the service required of the Bureau under the rules and regulations prescribed in compliance with section 7 of the act of Congress approved May 29, 1872. These regulations provide for an application for indemnity for loss or injury sustained by the action of Indians to the Indian agent in charge of the tribe to which the depredators are supposed to belong, such application to be supported by the sworn testimony of the claimant, giving full description of the property and a detailed statement of the circumstances by which the loss occurred, also by the deposition of two or

more persons cognizant of the facts set forth by the claimant. This application thus supported is to be investigated by the Indian agent as to the probable facts of the case and the validity of evidence submitted, and then by him presented to the tribe with a demand for satisfaction to the claimant. If the demand is not complied with, a report is to be made as to whether the tribe admit the depredation to have been committed by some of their number or deny the charge, the case to be then reported to this Office for examination and report to the Department. In accordance with law the Secretary has heretofore been required to report to Congress at each session all such claims, with the action taken by the Department thereon.

In the Revision of the United States Statutes, however, this requirement of a report to Congress is omitted, and it is provided only that upon the report of the agent, as above set forth, to the Commissioner of Indian Affairs, "such further steps may be taken as shall be proper, in the opinion of the President, to obtain satisfaction for the injury."

It will be readily seen that such extended official action in compliance with the requirements of law is calculated to lead parties who have suffered loss by Indians to expect to receive satisfaction therefor, and in this expectation they proceed to conform to the regulations prescribed by the Department, and often incur no inconsiderable expense in the employment of attorneys and in procuring necessary testimony to establish their claims.

The facts, however, give to claimants but little encouragement to expect a final adjudication, as the following statistics, covering the period from January 1, 1867, to October 31, 1875, will show:

Number of claims filed in Indian Office		1,557
Aggregate amount of claims filed		$4,797,380 65
Amount reported by the Office for allowance thereon	$1,143,810 54	
Amount reported for disallowance	1,626,389 70	
Amount of the claims on file yet to be examined and reported upon	1,930,568 30	
Amount of such of the claims as have been returned to the claimants	96,612 11	
Total		4,797,380 65
Number of above claims allowed and paid by the Department previous to act of Congress May 29, 1872, prohibiting any payment on account of such claims except from funds specifically appropriated therefor.		62
Amount of payments on said 62 claims from treaty-funds of Indians and from moneys specifically appropriated		$139,000 00
Number of the said reported 1,557 claims paid by the Department since act of 1872		5
Aggregate amount payments on said five claims		$26,112 80

Since the act of May 29, 1872, under which this inquiry has been made and corresponding expectations excited, only five claims, amounting to $26,112.80, out of the 1,557 claims filed, involving nearly five millions of dollars, have received the attention of Congress; and I respectfully suggest that this matter be laid before Congress, with the recommendation that, if no further action upon the claims thus examined and reported is to be taken, the Office may be relieved from the duty of such examination, in order that persons who have suffered from Indian depredations may not be led to incur additional loss by the expense involved in preparing and presenting their claims to the Department, and that they may be also saved from solicitude as to the issue of expectations which are very naturally awakened by the formal official action now required by act of Congress.

SPECIAL COMMISSIONS—KICKAPOO REMOVAL.

A commission consisting of Hon. Henry M. Atkinson, of Nebraska, and Col. Thomas G. Williams, of San Antonio, Texas, was appointed in March, 1873, under acts of Congress approved July 15, 1870, and March 31, 1871, [Stat. at Large, pp. 359, 569,] to effect the removal of the Kickapoo and other American Indian tribes, roving on the borders of Mexico and Texas, to reservations within the Territories of the United States. They have reported the successful removal of 480 Kickapoos from the border to reservation in Indian Territory. On the 5th of May last, William M. Edgar, esq., succeeded Mr. Atkinson, resigned, and was authorized to complete the work begun by said commission. On the 14th of July last, Mr. Williams, in concluding the work assigned the commission, reported that the authorities of the Mexican State of Chihuahua had made a treaty, in May last, with the Indians of that State, wherein the Indians are provided with subsistence and a permanent reservation for all the tribes, who are required to locate and remain thereon, under similar restrictions to those regulating American reservations, and they are specifically prohibited from crossing the Rio Grande into the United States, for any cause, without special permission. This treaty, if approved by the general government of Mexico, and enforced, will relieve that portion of the frontier of Texas from further depredations by these Indians, and at the same time the United States will be relieved of the cost of feeding, caring for, or of fighting them, in the future. Inasmuch as the same grounds for complaint existed in Sonora as in Chihuahua, Colonel Williams was authorized and instructed, September 1, 1875, to return to Chihuahua, to see that the arrangements agreed upon by the authorities of Mexico, to provide a reservation in Chihuahua as a permanent home, &c., for the Mescalero Apaches and other Indians had been properly effected, and to extend the visit into Sonora, and endeavor to effect the removal of such other members of the Apache tribe as are in that State to a reservation, with a view to their permanent settlement thereupon.

EXPLORING EXPEDITION TO BLACK HILLS.

An exploring expedition, consisting of Walter P. Jenney, esq., of the School of Mines, New York City, as mining engineer in charge; Henry A. Newton, esq., of Ohio, as assistant geologist; Henry P. Tuttle, esq., formerly of the United States Navy, as astronomer; and Dr. V. T. McGillycuddy, of Powell's expedition, as topograper, was authorized by the Hon. Secretary of the Interior, in March and April last, with instructions from this Office, to visit the Black Hills country, in the Territories of Dakota and Wyoming, with a view to obtain accurate information in relation to its mineral deposits. Mr. Jenney has submitted a preliminary report, which is found herewith.

SIOUX CESSION OF BLACK HILLS, ETC.

A commission, consisting of Hon. Wm. B. Allison, of Iowa; F. W. Palmer, esq., of Illinois; Brig. Gen. A. H. Terry, of United States Army; Hon. Abram Comingo, of Missouri; Rev. S. D. Hinman, of Dakota; G. P. Beauvais, esq., of Missouri; Albert G. Lawrence, esq., of Rhode Island; and W. H. Ashby, esq., of Nebraska, was appointed, in June last, by the Hon. Secretary of the Interior, under the direction of the President, to negotiate with the Sioux Indians relative to the procurement

of a cession by them of such portion of that country known as the Black Hills, between the north and south forks of the Big Cheyenne, as the President may determine to be desirable for the Government to purchase for mining purposes, and a relinquishment of their rights to that portion of Wyoming known as the Big Horn Mountains, and lying west of a line running from the point where the Niobrara River crosses the east line of Wyoming to the Tongue River. No report has been received at this Office from this commission, though it is known that its mission was not successful.*

RED CLOUD AGENCY INVESTIGATION.

On the nomination of the chairman of the Board of Indian Commissioners, the Hon. Secretary of the Interior appointed Hon. Thomas C. Fletcher, of Saint Louis; Hon. Benjamin W. Harris, of Massachusetts, Hon. Charles J. Faulkner, of West Virginia, a special commission, to which Hon. T. O. Howe, of Wisconsin, and Prof. George W. Atherton, of New Jersey, were added by the President, to visit the Red Cloud agency, and were instructed to avail themselves of all means within their reach so as to obtain the true state of affairs, and to make, without fear or favor, a full and thorough investigation of all complaints of fraud and irregularities, and other matters pertaining to the agency, and report relative to its past and present condition and management, with such recommendations as will enable the Department to take proper action in the premises; and, while in the Indian country, to make such observations, pertaining to Indian affairs generally, at Red Cloud agency, as will be of assistance to the administration of the Indian Bureau.

The commission has submitted the result of its investigation and views in a report to the president of the Board of Indian Commissioners, under date of October 16, 1875.

The complaints and alleged grievances of Red Cloud upon which the commission was originated were found to be groundless. The sweeping charges of fraud on the part of the agent and other Government officials were also found to have been made upon hearsay evidence and not in accordance with fact. The commission inquired with great thoroughness into all the disbursements made with Red Cloud agency during last two years, amounting to over $1,250,000. This disbursement was made in many forms, by contracts and purchase, and employment of services of a multitude of persons, and in a country remote and inaccessible, and where attempts at fraud might be expected to be made, and to meet with success as frequently as in any portion of the Indian service. A diligent inquiry on the ground by these five gentlemen, eminent for their ability and sagacity, resulted in a discovery of several attempts at fraud which had been defeated, and of two attempts which had proved successful, one resulting in a loss to the Government of $900, and the other of from $4,000 to $7,000. The commission recommend radical measures for enforcing civilization, and the inspection and delivery of supplies through the officers of the Army.

OSAGE AGENCY INVESTIGATION.

Hon. Nelson H. Van Vorhes, of Athens, Ohio; E. C. Kemble, United States Indian inspector; Hon. Henry S. Neal, of Ironton, Ohio; H. F. Hawkes, of Chicago, and Hon. Asa Hodges, of Marion, Ark., were desig-

* Report since received.

nated by the honorable Secretary of the Interior, in July last, special commissioners to investigate affairs at the Osage Indian agency, in Indian Territory, the necessity for which arose from the frequent complaints which have reached the Department from a large portion of the tribe, but more especially from a petition addressed to the President, numerously signed by the Osages, making charges against their agent and asking his removal.

This commission was instructed to inquire into Agent I. T. Gibson's administration of Indian affairs, giving the subject a particular and thorough investigation, in order that the proper remedy may be applied if the service has in any way suffered, or is suffering, by reason of inefficiency, fraud, or neglect on his part; and also if he is in any manner unjustly accused, that his conduct and administration may be vindicated and the Indians informed accordingly.

This commission performed its duties and submitted its report and proceedings September 14, 1875. They find the charges against Agent Gibson to have been mainly frivolous in their nature, and aris ng out of contentions and disturbances in the tribe; that the agent has administered his affairs with strict integrity, and that the Government has suffered no loss from any fraud or neglect by any officer or employé of the Government.

REMOVAL OF INDIANS TO SILETZ AGENCY.

A commission consisting of Benjamin Simpson, esq., of Portland, Oreg.; J. H. Fairchild, United States Indian agent at Siletz agency, and George P. Litchfield, United States Indian subagent at Alsea, was appointed by the honorable Secretary of the Interior, July 19, 1875, to visit the coast range Indians in Oregon, and, in accordance with the provisions of the Indian appropriation act approved March 3, 1875, (Stat. at L., vol. 18, p. 446,) to remove them from their present reservations to the Siletz reduced reserve.

The commission have visited the agency and report the Siletz Indians as consenting to the removal, and as actually removing, September 29, 1875, to the reduced reserve. The Alsea Indians have not yet assented to a removal, and the commission recommend the removal of all Government property, and such Indians as are willing to accompany it, to the Siletz reduced reserve at once.

MESCALERO APACHE INDIAN INVESTIGATION.

Upon the recommendation of this Office, Hon. John McNulta, of Bloomington, Ill., a late member of the Indian Committee of the House of Representatives, was appointed, March 11, 1875, by the honorable Secretary of the Interior, a commissioner to visit the Mescalero Apache Indian agency at Fort Stanton, N. Mex., and make investigation of the alleged outrage and massacre of Indians upon that reserve by a party of Mexicans and American citizens on the 1st of January last, which resulted in the murder of three Indians, the loss of their property, and subsequently the abandonment of their reservation; and a retaliation on their part, followed by a further attack on the part of citizens and outlaws.

Mr. McNulta was instructed to look into the causes of such conduct on the part of the citizens, and to adopt such methods, if possible, as would prevent its recurrence, and to assure the Indians of protection during good behavior or of punishment when they commit depredations.

Inasmuch as grave charges were made by the military relative to the management of affairs at the agency, and reflecting upon the adminis-

tration of those representing the Indian Department, Mr. McNulta was instructed also to inquire fully into all alleged irregularities at the agency, and report the cause of the irritation and conflict which seemed to exist between the military and the agent at the Fort Stanton Indian reserve, and to endeavor to procure harmony and co-operation between them.

Mr. McNulta was further charged with the duty of reporting what settlers were within the limits of the reservation, and located there prior to the establishment of the reserve by order of the President dated May 29, 1873, the value of their improvements, and whether any necessity existed for their removal, and whether any change should be made in the boundaries of the reservation to meet the wants of the Indians and avoid conflict with the rights of bona-fide settlers.

In compliance with these instructions, Mr. McNulta visited this reservation, also the Cimarron agency, which he was verbally requested to do, and has filed his report giving the result of these visits and his investigation of the questions therein involved.

The Cimarron Agency.

The Indians of this agency he pronounced "an unmitigated nuisance" to the citizens, and should, for mutual benefit, be removed to the reservation provided for them north of the San Juan River. They constantly encroach upon the fields and possessions of the settlers, kill their cattle, and are insolent and overbearing. He recommends that the attention of Congress be called to the necessity for ratification of the agreement with the Indians to put them on the Jicarilla reserve, and immediate measures be taken to discontinue the agency at Cimarron.

Mescalero Apache Reservation.

Respecting the outrage upon and subsequent massacre of some of the Indians upon this reservation, Mr. McNulta has evidently made a thorough investigation, and comes to the conclusion that the Indians are in no degree at fault in this affair.

The attack was commenced and continued by the citizens within the hearing and reach of the military, who rendered no relief, excusing themselves upon the supposition that the Indians were fighting among themselves. The Indians seeing no effort was made to afford them any protection or relief, fled to the mountains as their only safety, after informing the agent and the military of their intention.

Here they were attacked by the military, when they left again for remoter parts, abandoning their camps, clothing, and provisions, which were taken by the military and destroyed, and fifty-five horses were captured and sold; and three mules, taken at the same time from the Indians, are now in the possession of the quartermaster.

The Indians have since been induced to return to the reservation, where they have remained with a greater feeling of security.

The charge that "the Indian Department throws obstacles in the way of the military," &c., is fully presented, but he finds no evidence to sustain it; and the commanding officer, when called upon for testimony in support of the charges made, gave none, and would indicate no source from whence it could be derived, but gave it as his "opinion" that such was the fact.

Respecting the alleged mismanagement of agency affairs, Mr. McNulta entirely exonerates the agent, and states that he seems to have devoted

nearly all of his time to the outside control of the Indians, and to have been eminently successful in teaching them to work; but concerning the internal business management of the agency he is less favorably impressed, and recommends changes which have been directed.

Mr. McNulta recommended a change of the western boundary of the reserve, which has since been incorporated in an executive order defining the boundaries of the Fort Stanton Indian reservation.

Seminole Reservation.

On the 17th of March last, the hon. Secretary of the Interior designated Hon. J. P. C. Shanks a special commissioner to visit the Indian Territory and negotiate with the Creek Indians for the relinquishment to the United States of such portion of their country as may be occupied by the Seminoles, in accordance with the provisions of the act of Congress entitled "An act to authorize the Secretary of the Interior to negotiate," &c., approved March 3, 1873. (Stat. at L., vol. 17, p. 626.) Full instructions were issued on the 22d of March last, with a detailed history of the action of the Government, and the present status of the Seminole reservation, and other information as to the plan of settlement of this vexed question, which this Office has deemed feasible.

Mr. Shanks has made no report as yet on this subject.

Status of negroes in Chickasaw and Choctaw Nations.

On the 17th of March last, Hon. J. P. C. Shanks was appointed a special commissioner to visit Indian Territory and investigate and report an adjustment of the status of persons of African descent resident in the Choctaw and Chickasaw countries, reference being had to the provision relative to said persons embraced in the third and fourth articles of the Choctaw and Chickasaw treaty of July 10, 1866. (Stat. at L., vol. 14, p. 769.)

Mr. Shanks has not submitted any report on this subject to the consideration of this Office.

* * * * * * *

I am, sir, very respectfully, your obedient servant,

EDW. P. SMITH,
Commissioner.

Hon. SECRETARY OF THE INTERIOR.

REPORT OF THE ARCHITECT OF THE CAPITOL EXTENSION.

ARCHITECT'S OFFICE, UNITED STATES CAPITOL,
Washington, D. C., November 1, 1875.

SIR: I have the honor to submit herewith the report of F. Law Olmsted, esq., landscape-architect, relative to the improvements of the Capitol grounds; also the following report relative to the Capitol and other public works under the charge of the Architect of the Capitol.

UNITED STATES CAPITOL.

The entire building has been kept in good repair, and sundry improvements made to it since the date of my last report. Two rooms for

committees and two rooms for duplicate books for the Library have been fitted up in the central portion of the building.

A large amount of shelving has been added to the Library of Congress and to the law-library rooms. The fire-proof roofing near the dome has been extended.

The following frescoes in the Senate wing have been completed:

"The First Treaty with Great Britain," at the entrance to committee-room on Foreign Affairs.

"The Negotiation for the Acquisition of Louisiana," at the entrance to the room formerly occupied by the Committee on Territories; and "Bellona," at room on Military Affairs.

Also, "Science," "Architecture," "Painting," and "Sculpture," on the ceiling of room of Committee on the Library; besides several figures and emblems in small lunettes in the corridors.

The ceilings and walls of several of the committee-rooms have been repaired, and in some cases entirely repainted. The steam-boilers of the Senate wing have been put in good order by replacing the defective tubes, which were much injured by long exposure to the fire. Ashcroft's fire-doors have been placed to the furnaces of three of these boilers; in the use of these doors it is expected that a large saving of fuel will be effected. In case this expectation is realized, I would recommend the use of these or similar doors in the other furnaces. The main steam-coil for the House of Representatives has been taken down and repaired, the damage being done to it by the water in the pipes becoming frozen at night during the severe weather last winter. To prevent the recurrence of such accidents, and to keep the halls more comfortable in cold weather, I recommend that slow fires be kept up all night. At present the fires are allowed to go out as soon as either House adjourns, and in consequence the rooms get cold, so that a great amount of heat is required in the morning to warm the walls so that the temperature of the halls can be under proper control.

In carrying out this suggestion, I believe but a small increase of fuel would be required, as less would be used in the morning to acquire a comfortable temperature in the rooms and halls.

IMPROVING CAPITOL GROUNDS.

For full information relative to the work on these grounds during the past season, I beg leave to refer to the report of F. Law Olmsted, esq., lanscape-architect, herewith submitted.

After due consideration, I am now convinced that, to finish these grounds in a manner worthy the building they surround, it will be necessary to change the present rustic terraces by widening, and by facing them with a wall, with grand stairs at the center, as proposed by Mr. Olmsted. Should this be done, I recommend that a provision be made for the extension of the central portico of the western front, in order to give that portion of the building due prominence.

BOTANICAL GARDEN.

Under the direction of the Joint Committee on the Library, I have had charge of the improvements at this garden.

A new forcing-house and a long wagon and work shed have been erected. The buildings and grounds have been further improved and kept in good repair.

FIRE-ENGINE HOUSE.

The building provided for this purpose by act of Congress approved June 23, 1874, has been completed, and is now occupied by the fire

apparatus No. 3, belonging to the District of Columbia. I recommend that this building may be turned over to the District authorities by an act of Congress, so that it may be under the same control as the other property of the fire department of this city.

STABLE FOR UNITED STATES MAIL-WAGONS.

A building for this purpose has been erected on the lot at the north of the Capitol, recently purchased by the United States. As similar stables are required for the House mail-wagons, I recommend their construction on the lot at the south of the Capitol, purchased by the United States for that purpose.

BUILDING FOR THE WOMAN'S CHRISTIAN ASSOCIATION OF THE DISTRICT OF COLUMBIA.

As provided by act of Congress approved June 23, 1874, I have furnished plans for a building for this association, which is nearly completed; and will, it is expected, be occupied this winter. It was erected under a contract, for a sum within the amount appropriated by Congress.

COURT-HOUSE IN THE CITY OF WASHINGTON.

By the direction of the Attorney-General, I have caused various improvements and repairs to be made to this building. The basement story has been rendered suitable for business purposes by increasing the height of the story, and paving rooms and passages with concrete. In the court-rooms that part of the floors outside the bar has been covered with the Neuchatel pavement. Additional water-closets have been supplied, and the passage in the principal story has been so arranged as to afford a consultation-room for the judges. As the court-rooms are heated by means of the ordinary hot-air furnaces, which will not last over the coming winter, I recommend that they may be replaced by a steam-heating apparatus capable of heating the corridors as well as the court-rooms.

REPORT OF FRED. LAW OLMSTED, LANDSCAPE-ARCHITECT.

NEW YORK, *September* 17, 1875.

SIR: Since my last report, the grading required to carry out the new plan of the east Capitol grounds has been completed.

One hundred and fifty-seven trees have been transplanted by means of the tree-trucks, and re-arranged in appropriate groups, and at this date there are no indications of any of them having suffered from the change.

The old pool near the east portico has been vaulted over and the statue of Washington removed.

The parapet-wall, with seat, mosaic walk, and sixteen bronze gas-posts bounding the east carriage-court, the six large piers with bronze lamps forming the grand central entrance to the court, the flower-vases, and bronze fountain-vases, and all other of the stone-work, except an outer curb, of the east grounds, are completed, or well advanced, under contracts for early completion during the present season.

The whole of the east and most of the west grounds have been provided with an elaborate and complete system of road and subsoil drainage, gas-lighting, and water-supply.

The main pipe for the service of fountains, and the electrical apparatus for lighting the lamps of the carriage-court, and the ornamental shelters at the termini of the car-tracks are in course of execution.

The east grounds have been provided with a fertile soil 1 foot in depth, with a friable and partially fertilized subsoil to a depth of 2½ feet.

A considerable part of the west grounds has been graded and shaped, preparatory to treating it in the same manner during this season.

The roads and walks of the east grounds and the carriage-court have been formed

and graveled, and the approach-drives through the west grounds formed and partially macadamized.

The north and south porte-cochères have been paved with Neuchatel asphalt, and a contract entered into to concrete the north and south foot-approaches. The street-railroad on the north and south sides of the west grounds has been removed and relaid clear of the Capitol grounds.

The stables and workshops formerly situated at the northwest and southwest angles of the west grounds have been removed.

The following is a statement of the various works executed or under contract to the present date, viz:

255,000 yards of earth and other material excavated and removed.
5,860 linear yards subsoil-drains, 1½ to 3 inches diameter, laid.
4,032 linear yards brick and pipe drains for the drainage of the roads and walks.
186 set-basins and man-holes for same.
4,658 linear yards cast-iron pipe, 3 to 12 inches diameter, for water-supply.
132 hydrants.
18 stop-cocks and valves.
1,048 linear yards 1 to 3 inch wrought and cast iron pipes for gas-supply.
46 lamps in cast grounds.
15,000 cubic yards soil manure and peat purchased and used.
15½ acres worked over and partially seeded.
157 large trees transplanted.
649 small trees purchased and planted and in nursery.
30,700 square yards drives, &c., formed and graveled.
10,305 square yards of walks formed and graveled.
800 linear yards roads formed and prepared for macadam.
1,064 square yards of Neuchatel asphalt pavement at porte-cochères.
18,045 feet mosaic concrete pavement.
4,956 linear yards granite curb to roads.
2,100 linear yards bluestone edging to walks.
430 linear yards bluestone coping to mosaic pavement.
12,000 square feet concrete pavement for foot-approaches.
1,792 linear yards street-railroad taken up and relaid.

In addition there are—

8,900 linear yards subsoil drain-pipe in stock.
1,585 linear yards bluestone edging in stock.
724 linear yards of 3 and 4 inch cast-iron pipe.

I have the honor to be, your obedient servant,

FRED LAW OLMSTED,
Landscape-Architect.

Amount expended upon the United States Capitol grounds from June 30, 1874, to June 30, 1875.

For grading grounds east of Capitol	$42,477
For drainage grounds east of Capitol	6,560
For drainage grounds west of Capitol	2,992
For agricultural drainage east of Capitol	747
For water-service of grounds	6,458
For gas-service of grounds	771
For fertilizers, manure, lime, and peat	7,599
For soil purchased and delivered	7,114
For gravel for roads and walks	3,476
For granite curbing bought and set	9,401
For bluestone curbing and edging	4,029
For bluestone work for seats, lamp-piers, and fountains	15,550
For Neuchatel and mosaic paving	3,630
For material for masonry—stone, brick, lime, sand, and cement	3,579
For lumber for walks, tree-trucks, &c	1,326
For trees bought and delivered upon grounds	1,447
For trucks for moving trees bought	1,457
For removing railroad-tracks and relaying same	1,940
For removing stables of House of Representatives	427
For removing architect's office, and rent of ground for engineer's office	330
For tools for laborers, mechanics, &c	2,379
For hire of teams for moving trees, plowing, and hauling materials	2,543

For professional services of F. L. Olmsted, from July 14, 1874, to April 13, 1875, inclusive	$2,156
For professional services of Geo. K. Radford, consulting engineer	2,429
For professional services of Thos. Wisedell, draughting and designing	968
For professional services of O. C. Bullard, superintending removal of trees, &c.	1,502
For pay-rolls for mechanics, laborers, &c	61,944
For miscellaneous bills	4,749
Total amount expended to June 30, 1875	200,000

Amount due and unpaid June 30, 1875.

Pay-rolls for June	$5,546 22
F. Law Olmsted, for two months and seventeen days' services	852 96
Thos. Wisedell, for services	350 00
	6,749 18

CAPITOL EXTENSION.

Amount expended from June 30, 1874, to June 30, 1875.

Amount paid on rolls of mechanics, laborers, &c	$43,340 84
Amount paid for furnace-bars	486 40
Amount paid for horseshoeing and smithing	79 62
Amount paid for hardware and metals	2,966 17
Amount paid for materials for plumbing and gas-fitting	1,580 79
Amount paid for freight	285 20
Amount paid for cleaning chimney-flues	98 00
Amount paid for repairs to boilers, &c	2,162 76
Amount paid for felting for ceiling	380 00
Amount paid for copper for roofing	1,761 92
Amount paid for forage	326 00
Amount paid for coal	239 40
Amount paid for covering fly-doors	352 87
Amount paid for repairing desks in hall of Representatives	126 50
Amount paid for glass	594 90
Amount paid for steam-pump	800 00
Amount paid for plated door-handles	133 00
Amount paid for paint	2,245 94
Amount paid for miscellaneous bills, such as lime, sand, cement, bricks, &c.	11,839 69
	69,800 00
Amount appropriated June 23, 1874	69,800 00

Respectfully submitted.

EDWARD CLARK, *Architect.*

The Hon. SECRETARY OF THE INTERIOR.

COLUMBIA INSTITUTION FOR DEAF AND DUMB.

COLUMBIA INSTITUTION FOR THE INSTRUCTION OF THE DEAF AND DUMB,
Kendall Green, near Washington, D. C., October 26, 1875.

SIR: In compliance with the acts of Congress making provision for the support of this institution, we have the honor to report its progress during the year ending June 30, 1875.

NUMBER OF PUPILS.

The pupils remaining in the institution on the 1st day of July, 1874, numbered	74
Admitted during the year	16
Since admitted	12
Total	102

Under instruction since July 1, 1874, males 89; females 13. Of these, 53 have been in the collegiate department, representing twenty-one States and the Federal District, and 49 in the primary department. A list of the names of the pupils connected with the institution since July 1, 1874, will be found appended to this report.

HEALTH OF THE INSTITUTION.

We are permitted to record another year of exemption from any serious or prevailing disease. The slight ailments which have occurred from time to time have yielded readily to the skillful treatment of our attending physician, and the careful attention of the matrons. For the blessing of health and exemption from death during the year now under review we desire to record our gratitude to the Disposer and Ruler of all events.

COURSE OF STUDY.

The courses of study pursued in the several departments have remained essentially the same as in previous years. The following schedule will show the branches taught and the text-books used in the respective classes:

IN THE PRIMARY DEPARTMENT.

During the first and second years of instruction: Elementary Lessons for the Deaf and Dumb, by Harvey Prindle Peet, LL. D.; First Lessons for the Deaf and Dumb, by John R. Keep, M. A.; the School Reader, part first, by Charles W. Sanders, M. A.

During the third and fourth years: Lessons for Children, by Mrs. Barbauld; Reading without Tears, part second, by Mrs. Mortimer; Felter's Primary Arithmetic; Primary Geography, by Fordyce A. Allen, M. A.

During the fifth and sixth years: Primary History of the United States, by G. P. Quackenbos, A. M.; Common School History of the World, by S. G. Goodrich; First Lessons in English Grammar, by Simon Kerl, M. A.; New Intermediate Geography, by S. Augustus Mitchell; Felter's Intermediate Arithmetic.

Instruction is given through the whole course in the structure of the English sentence, and in penmanship according to the Spencerian system.

IN THE COLLEGIATE DEPARTMENT.

Studies of the preparatory class.

Mathematics.—Eaton's Grammar School Arithmetic; Loomis's Treatise on Algebra, (through quadratic equations.)

Physical Geography.—Warren's Physical Geography.

History.—Lossing's Common School History of the United States.

Natural Philosophy.—Wells's Philosophy.

English.—Kerl's Common School Grammar; Berad's History of England; original compositions.

Latin.—Allen's Latin Grammar; Allen's Latin Lessons; Cæsar's Commentaries.

Studies of the freshmen class.

Mathematics.—Loomis's Treatise on Algebra; Loomis's Geometry.

English.—Kerl's Common School Grammar, (reviewed;) Berard's History of England; original compositions; Thalheimer's Manual of Ancient History.

Latin.—Sallust; Cicero's Orations; Allen's Latin Grammar.
* *Greek.*—Boise's First Lessons in Greek; Hadley's Greek Grammar; Xenophon's Anabasis.

Studies of the sophomore class.

Mathematics.—Loomis's Conic Sections; Loomis's Plane and Spherical Trigonometry and Surveying.
Botany.—Gray's School and Field Book of Botany.
Chemistry.—Cooley's Chemistry, with lectures.
Latin.—Virgil's Æneid; Odes of Horace.
* *Greek.*—Homer's Iliad.
History.—Thalheimer's Mediæval and Modern History.
English.—Shaw's History of English and American Literature; Shaw's Choice Specimens of English Literature; Trench's English Past and Present; original compositions.

Studies of the junior class.

Mathematics.—Snell's Olmstead's Natural Philosophy; Loomis's Treatise on Astronomy.
Chemistry.—Laboratory Practice; Howard's Practical Chemistry.
Mineralogy.—Foye's Tables.
Geology.—Dana's Text-Book of Geology.
French.—Otto's French Grammar; Souvestre's Philosophe sous les Toits; Erckmann-Chatrian's Romans Nationaux; Racine's Athalie.
* *Greek.*—Demosthenes on the Crown.
History.—Guizot's History of Civilization.
English.—Bain's Rhetoric; Jevons's Logic; original compositions.

Studies of the senior class.

Geography.—Guyot's Earth and Man.
Zoology.—Morse's Elements of Zoology; Tenney's Elements of Zoology.
Physiology.—Brown's Physiology and Hygiene.
German.—Whitney's German Grammar; Whitney's German Reader; Fouqué's Undine; Lessing's Minna von Barnhelm; Schiller's Wilhelm Tell.
Mental Philosophy.—Porter's Elements of Intellectual Science.
English.—Shaw's Smaller History of English and American literature; Shaw's Choice Specimens of English Literature; original compositions.
Moral Philosophy and Evidences of Christianity.—Haven's Moral Philosophy; Butler's Analogy.
Political Philosophy.—Perry's Political Economy; Woolsey's International Law.
Æsthetics.—Bascom's Elements of Beauty.
Instruction in book-keeping and in drawing and painting is given to those who desire it.
Instruction in articulation is given to those who desire it, and are found to possess such natural aptness for correct vocalization as seems to justify the great expenditure of time and labor essential to any satisfactory progress.

* Optional.

THE BAKER LIBRARY.

This valuable collection of books, to which allusion was made in our last report, has now come into the possession of the institution. The library comprises between five and six hundred works, a large majority of which are devoted exclusively to the subject of deaf-mute instruction; others, of more general character, contain paragraphs or chapters relating to the instruction or treatment of the deaf and dumb; while not a few give exclusive attention to the structure and diseases of the organs of hearing.

Many of these books are of so great rarity and value that it seems proper to make known to the public the fact of their being in the library of this institution. We have therefore caused a list of the titles of the entire collection of Dr. Baker to be prepared, arranged so as to present the volumes in the chronological order of their issue. This catalogue will be found appended to this report, and its publication herewith is especially requested.

CHANGES IN CORPS OF OFFICERS.

Mrs. Elizabeth L. Denison, who has been for seven years our assistant matron, resigned her position in June last. Mrs. Denison has performed the duties of her position in a most faithful and efficient manner, and her retirement is a matter of extreme regret to all concerned in the management of the institution.

Miss Margaret Allen, of Connecticut, a graduate of the institution for deaf mutes in Hartford, has been appointed assistant matron, and gives promise of success in her position.

EXERCISES OF PRESENTATION DAY.

In our last report mention was made of a change in the time and manner of the public anniversary exercises of our collegiate department, and an account was given of the proceedings of our first presentation day. The experiment proved so great a success that our public exercises of 1875 were similar to those of 1874, and it is probable that presentation day will become the permanent anniversary of our college.

The afternoon of the 7th of April last brought a very large attendance of visitors to the hall of the institution, many being unable to gain admission.

After prayer by Rev. Dr. Chickering, of Boston, the candidates for degrees delivered original essays, as follows:

Oration, "Lost Civilization in America," by Orson Archibald, of Brookston, Ind.

Dissertation, "Socrates," by Elias Myers, Uniontown, Ohio.

Dissertation, "Woman's Domain," by James C. Balis, Milwaukee, Wis.

Dissertation, "Home the Training Place of the Citizen," by Albert C. Powell, Findlay, Ohio.

Oration, "The Epoch of the Renaissance in Italy," by William C. Pick, Providence, R. I.

Oration, "Abuse of the Freedom of the Press," by James M. Park, Columbus, Ohio.

delivered an address to the members of the graduating class, of which

At the conclusion of these exercises, the Hon. Columbus Delano the following is a brief synopsis:

SECRETARY DELANO'S ADDRESS.

This noble institution, which commands respect and confidence, was connected with the branch of public business in his charge, and he had taken a deep interest in its prosperity. He was not prepared to make an address, as he had just come from a multitude of cares. He referred to the origin and history of the institution, and stated that some years ago a man came to this city and exhibited a few deaf mutes on the streets. Some gentlemen wrested these unfortunates from the man's grasp, and with their private means started this institution; after which the United States Government came to their rescue, and the institution has progressed ever since. Some of the officers present were such from its foundation, and the name of Amos Kendall could never be forgotten.

He next addressed the candidates, and referred to them as about entering into a new sphere of life. In another year they would graduate, which would bring them to an important epoch of their lives. It would not finish their education, but would give them an opportunity to put into practice what they had been taught. A man's education was never finished, but the training they had received would enable them to achieve success.

When the college halls were left, an opportunity would be afforded then to study the world. God's works would afford knowledge, and the young men would be like the ship lying in her harbor provisioning ready for the stormy sea, when, after leaving her wharf she would be piloted out, after which she would have to make her own way. They should remember that they had a chart of this sea, received at this institution, and a pilot also. Rely steadfastly on him, and the journey would be prosperous. He had seen some stormy voyages, and he hoped the young men would be more prosperous. He claimed that the president and professors were doing a good work by spreading before them morality, Christianity, and knowledge, for which they deserve praise from a Christian community.

Mr. Stickney, the secretary of the board, then read a letter from Professor Henry, of the Smithsonian Institution, expressing regret at his inability to be present, and his gratification at the progress made by the students of the college, as shown in certain examination-papers which he had recently read.

The young gentlemen who had delivered essays were then presented by the president of the institution to the board of directors as candidates for the degree of bachelor of arts.

After which the exercises were closed with prayer and the benediction by Rev. J. W. Parker, D. D.

CONFERRING OF DEGREES.

At the close of the academic year, degrees were conferred in accordance with the recommendations of presentation-day, excepting in the case of Orson Archibald, of Indiana, who was called home by sickness in his family just before the closing examinations. Mr. Archibald has, however, since sustained satisfactory examinations, and has received his degree.

Expenditures.

The receipts and disbursements for the year now under review will appear from the following detailed statements:

I:—SUPPORT OF THE INSTITUTION.

Receipts.

Balance from old account	$1,353 39
Received from Treasury of the United States	48,000 00
Received for board and tuition	1,935 70
Received from manual-labor fund	436 50
Received from students for books and stationery	417 85
Received for work done in shop	486 51
Received from sale of live stock	223 00
Received from damage to grounds by cattle	11 25

Received for rent	$45 90
Received from sale of gas	53 85
Received from pupils for repairs of shoes	5 94
Received from sale of wood and old lumber	97 50
Received from sale of old metal	53 05
Received from sale of old carpet	16 88
Total	53,716 42

Disbursements.

Expended for salaries and wages	25,156 56
Expended for groceries	3,852 80
Expended for meats	4,434 99
Expended for household expenses, marketing, &c	2,011 34
Expended for butter and eggs	2,197 92
Expended for fuel	603 72
Expended for bread	941 58
Expended for gas	1,078 25
Expended for repairs on buildings	1,588 13
Expended for furniture	1,352 41
Expended for live stock	335 00
Expended for expenses of directors' meetings	40 00
Expended for books and stationery	964 25
Expended for dry goods and shoes	268 13
Expended for medical attendance	285 00
Expended for plants and shrubs	165 73
Expended for feed, fertilizers, and seeds	610 66
Expended for lumber	472 84
Expended for printing and engraving	153 00
Expended for drugs and chemicals	187 55
Expended for wagon and carriage repair	215 00
Expended for illustrative apparatus	301 77
Expended for blacksmithing	102 00
Expended for cart and harness	80 00
Expended for hardware	568 62
Expended for harness and repairs	314 06
Expended for auction expenses	17 50
Expended for ice	72 18
Expended for Baker library	1,353 62
Balance unexpended*	3,991 81
Total	53,716 42

II.—EXTENSION AND FITTING UP OF BUILDINGS.

Receipts.

Received from Treasury of the United States	$20,000 00

Disbursements.

Expended for labor	3,417 24
Expended for building materials	4,951 26
Expended for tower clock and bell	1,076 90
Expended for lightning-rods	312 00
Expended for architect's services	2,141 64
Expended on contract with J. G. Naylor	17,000 00
Balance unexpended	70 96
Total	20,000 00

PROGRESS OF WORK ON BUILDINGS.

The appropriations made by Congress in June, 1874, and March, 1875, have enabled us to advance the work on our buildings in a very satisfactory manner. The two dwelling-houses spoken of in our last report as being under way have been completed, and are now occupied. The walls of the college building have been carried to a point somewhat

*About $1,900 of this balance will be expended for coal, contracted for before the close of the fiscal year ending June 30, 1875, but which, owing to the disturbed state of the coal-market, could not be delivered.

above the level of the second floor. The terrace-wall, which forms in reality a part of the main central building, but serves to connect all the principal buildings of the institution in one group, has been finished, with the exception of the coping, and a substantial flight of granite steps leading to the portico of the center building has been constructed.

We would respectfully urge the importance of the earliest possible completion of our buildings, without repeating the reasons therefor, which have been fully set forth in our last two reports.

ESTIMATES FOR NEXT YEAR.

The following estimates of appropriations for the service of the fiscal year ending June 30, 1877, have already been submitted.

For the support of the institution, including salaries and incidental expenses and $500 for books and illustrative apparatus, $48,000.

For continuing the work on the erection and fitting up of the buildings of the institution in accordance with plans heretofore submitted to Congress, $50,000.

For repairs on buildings already completed, $2,000.

For inclosure, improvement, and care of the grounds of the institution, $10,000.

The estimate for the support of the institution is the same as for the past four years, and as the number of our students and pupils is not likely to increase until the completion of our buildings, this amount will, it is believed, be sufficient to cover all regular current expenses. A small estimate for repairs is submitted, to provide for work, the need for which will be felt by the time the appropriation becomes available.

The estimate for erection and fitting up of buildings will not fall far short of being sufficient for their completion. The works are not yet sufficiently advanced to admit of absolutely final estimates. These are, however, certain to fall much within the limit of the original estimates, as was shown in our last annual report, to which we would respectfully refer for detailed information as to the aggregate cost of the grounds and buildings of the institution.

An estimate of $4,000 for the improvement and care of the grounds of the institution was submitted last year, and the importance of the work contemplated was strongly urged in our last report. The appropriation was, however, not made, and we were compelled to postpone certain important improvements, the necessity for which has now grown quite imperative.

Boundary street, along our entire front line, has been graded, curbed, and paved the past summer. This necessitates the resetting of the front fence, or the substitution of a new one. The old fence is of pine wood, and forms a very insufficient protection to the grounds. It would add much to the security of the premises, as well as to their appearance, if a low stone wall, surmounted by a plain iron railing, could be erected in place of the wooden fence now standing.

The fourth estimate above recited is submitted with a view of carrying out these improvements, and in the belief that it will be regarded by Congress as reasonable, and the appropriation proper to be made at this time.

All of which is respectfully submitted by order of the board of directors.

EDWARD M. GALLAUDET
President.

Hon. Z. CHANDLER,
Secretary of the Interior.

GOVERNMENT HOSPITAL FOR THE INSANE.

REPORT OF THE BOARD OF VISITORS.

GOVERNMENT HOSPITAL FOR THE INSANE,
Near Washington, D. C., October 31, 1875.

SIR: The undersigned, in behalf and by the direction of the Board of Visitors, have the honor to submit the twentieth annual report of the hospital, as required by statute.

Synopsis of the operations of the hospital during the year 1874–'75.

	Males.	Females.	Total.
Remaining June 30, 1874	526	156	682
Admitted in the year ending June 30, 1875	179	51	230
Whole number under treatment	705	207	912
Recovered	66	12	78
Improved	29	19	48
Unimproved	7	3	10
Died	51	7	58
Total discharged and died	153	41	194
Remaining June 30, 1875	552	166	718

The movements of the house in detail are as follows:

The number of patients under treatment on the 30th day of June, 1874, was—

From the Army, white males	181		
" " " colored "	4		
" " " white " discharged from service	162		
" " " colored " "	2		
" " " white " civilian employés	3		
" " " colored " "	1		
" " " white females "	3		
		356	
From the Navy, white males	44		
" " " " " discharged from service	3		
		47	
			403
From civil life, white males	103		
" " " " females	121		
		224	
" " " colored males	23		
" " " " females	32		
		55	
			279
Males, 526; females, 156; total			682

The number of patients admitted during the year ending June 30, 1875, was—

From the Army, white males	48	
" " " " " discharged from service	40	
		88

From the Navy, white males			14
" " " " " discharged from service			3
			17
			125
" civil life, white males			64
" " " " females			42
			106
" " " colored males			10
" " " " females			9
			19
			125
Males, 179; females, 51; total			230

There were eight (8) less persons than cases under treatment in the course of the year, by reason of six (6) re-admissions and two (2) transfers from the private to the indigent list, upon the order of the Secretary of the Interior.

The whole number of patients under treatment was—

From the Army, white males			229
" " " colored "			4
" " " white " discharged from service			202
" " " colored " " " " "			2
" " " white " civilian employés			3
" " " colored " " "			1
" " " white females " "			3
			444
" " Navy, white males			58
" " " " " discharged from service			6
			64
			508
" civil life, white males			167
" " " " females			163
			330
" " " colored males			33
" " " " females			41
			74
			404
Males, 705; females, 207; total			912

The discharges and deaths in the course of the year were—

Recovered, from the Army, white males			16
" " " " " " discharged from service			3
			19
" " " Navy, " "			12
" " civil life, " "			28
" " " " " females			10
			38
" " " " colored males			7
" " " " " females			2
			9
" males, 66; females, 12; total			78
Improved, from the Army, white males			1
" " " " " " discharged from service			3
			4
" " " Navy, " "			2
" " civil life, " "			22
" " " " " females			17
			39
" " " " colored males			1
" " " " " females			2
			3
" males, 29; females, 19; total			42

Unimproved, from the Army, white males, discharged from service		1
" " civil life, " "	4	
" " " " " females	2	
		6
" " " " colored males	2	
" " " " " females	1	
		3
" males 7; females 3; total		10
Died, from the Army, white males	10	
" " " " colored "	1	
" " " " white " discharged from service	26	
		37
" " " Navy, " "	3	
" " " " " " discharged from service	2	
		5
" " civil life " "	7	
" " " " " females	6	
		13
" " " " colored males	2	
" " " " " female	1	
		3
" males 51; females 7; total		58

The number of patients remaining under treatment on the 30th day of June, 1875, was—

From the Army, white males	203	
" " " colored "	3	
" " " white " discharged from service	168	
" " " colored " " " "	2	
" " " white " civilian employés	3	
" " " colored " " "	1	
" " " white females " "	3	
		383
" " Navy, white males	41	
" " " " " discharged from service	4	
		45
		428
" civil life, white males	106	
" " " " females	128	
		234
" " " colored males	21	
" " " " females	35	
		56
		290
Males 552; females 166; total		718

The recoveries were 58—per cent. of the discharges; 40 + per cent. of the discharges and deaths together; 34—per cent. of the admissions, and 8½ per cent. of the whole number under treatment. In several cases this year, convalescence was so far advanced at the time of their removal that they might have been classed among the recovered without much violence to truth and with none to probability; but as their respective normal mental conditions were not reached in the hospital, they are included among the improved. The 10 cases in which there was no substantial improvement were chronic, and in all probability incurable.

The deaths of male patients in the year were at the rate of 72 + and of the females at the rate of 33 + in a thousand; the average rate o both sexes was 63 + in a thousand.

The following ratios present instructive examples of the relative curability and mortality of recent and chronic insanity, and of cases from

the Army and Navy: Of the discharges and deaths of cases received direct from the Army and presumptively recent, 57 + per cent. recovered, and 39 + per cent. died; of those received direct from the Navy, 70 + per cent. recovered and 17 + per cent. died. Of the discharges and deaths of cases formerly in the Army and presumptively chronic, 9 + per cent. recovered and 79 — per cent. died. The only discharges of cases formerly in the naval service were 2 by death. Of the discharges and deaths of male civil patients, 48 — per cent. recovered and 12 + per cent. died; of females 30 — per cent. recovered and 17 + per cent. died; of both sexes 41 + per cent. recovered and 14 + per cent. died. The year was exceptional in the number of chronic civil cases discharged, by reason of the removal by the District commissioners of 21 non-resident indigent insane—chronic except one— 17 of whom had been in the institution for periods varying from one to five years. The ratios of the civil cases are somewhat more unfavorable on that account.

That the curability of insanity, after the first few months following the attack, is, as a rule, in inverse and something like compound proportion to its duration, is a truth in medicine as well known to experts as it is important to patients; but the greater proportion of recoveries among the naval than among the Army patients, as shown by the preceding ratios, particularly in time of peace, must be a special experience of this hospital, as the two classes have not been treated together in any other institution in sufficient numbers to form a basis of comparison. The difference was a little greater last year than this, and under present circumstances it will probably be constant. It is mainly, if not wholly, confined to the enlisted men of the two services, and seems to be due to the greater average physical stamina of sailors and the more sudden outbreak among them of mental derangement in strictly acute and hopeful forms, as compared with soldiers. It is probable that soldiers of the most depraved constitution and worst *morale* find their way to the hospital. At any rate, the observations of the institution indicate that the soldier frequently commences his life, as such, with the broken health and reduced fortune that have forced him to enlist for bread, and his weak curative forces are compelled to contend against insanity that has been very gradual in its invasion, not infrequently the morbification of a mental eccentricity, or what has been called the *insane temperament*, and finally becomes as fixed as the normal attributes of his mind, either from habit or structural change. We are aware that the rank and file of the Army contain many men of sound health and correct habits—young men from the farms and workshops, who enlist for a term, and, having been disappointed in the allurements of the service, return to the industries of civil life; and others, like their officers, make the service a life career.

PHYSICAL CONDITION OF THOSE WHO DIED.

Chronic, organic, and functional degeneration of the brain, without complicative or supervenient disease before death	7
Chronic, organic, and functional degeneration of the brain, with phthisis	13
" " " " " " epilepsy	11
" " " " " " diarrhœa	5
" " " " " " apoplexy	5
" " " " " " organic disease of heart	3
" " " " " " pneumonia	2
" " " " " " chorea	3
" " " " " " diphtheria	1
" " " " " " paralysis	1
" " " " " " pleurisy	1

Acute mania		" meningitis	2
" "		" exhaustive exacerbation	1
" "		" paraplegia	1
" "		" pneumonia	1
" melancholia		" exhaustion	1
" dementia		" organic disease of brain	1
			58

MENTAL CONDITION.

Acute mania	5
Chronic "	17
Acute dementia	1
Chronic "	31
Acute melancholia	1
Chronic "	3
	58

DURATION OF THE MENTAL DISEASE OF THOSE WHO DIED.

Less than one month	1
Two months	1
Four "	2
Six "	1
Nine "	2
One year	7
Two years	8
Three "	8
Four "	8
Five "	2
Six "	2
Seven "	2
Eight "	1
Nine "	2
Ten "	4
Eleven "	3
Thirteen "	1
Seventeen "	1
Eighteen "	1
Twenty "	1
	58

Of those who died during the year, there were:

	Buried in hospital cemetery.	Removed by friends.
From the Army, white males	33	
" " " colored "	1	
" " " white "		3
" " Navy, " "	3	
" " " " "		2
" civil life, " "	2	
" " " colored females	1	
" " " white males		5
" " " " females		6
" " " colored males		2
	40	18

Buried in hospital cemetery, 39 males, 1 female	40
Removed by friends, 12 males, 6 females	18
	58

As nearly as could be ascertained, the patients admitted during the year had been insane at the time of admission—

One to six months, from the Army, white males	29	
" " " " " " discharged from service	7	
" " " Navy, " "	9	
" " " " " " discharged from service	1	
" " civil life " "	33	
" " " " " females	24	
" " " " colored males	9	
" " " " " females	4	
		116
Six to twelve months, from the Army, white males	2	
" " " Navy, " "	1	
" " civil life, " "	4	
" " " " " females	3	
" " " " colored "	1	
		11
One to two years, from the Army, white males	15	
" " " " " " discharged from service	12	
" " " Navy, " "	4	
" " " " " " discharged from service	2	
" " civil life, " "	8	
" " " " " females	5	
" " " " colored "	1	
		47
Over two years, from the Army, white males	1	
" " " " " " discharged from service	7	
" " civil life, " "	3	
" " " " colored "	1	
		12
Over three years, from the Army, white males, discharged from service	2	
" " civil life, " "	2	
" " " " " females	3	
		7
Over four years, from the Army, white males, discharged from service	4	
" " civil life, " "	1	
" " " " " females	1	
		6
Over five years, from the Army, white males, discharged from service	1	
" " civil life, " females	3	
		4
Over six years, from civil life, white female		1
Over seven years, from the Army, white male, discharged from service	1	
" " civil life, " "	1	
		2
Over eight years, from the Army, white males, discharged from service	2	
" " civil life, " female	1	
		3
Over nine years, from the Army, white male, discharged from service		1
Over ten years, from the Army, " "	1	
" " " " " " discharged from service	2	
" " civil life, " "	3	
		6
Over eleven years, from the Army, white male, discharged from service		1
Over thirteen years, from civil life, white female	1	
" " " " colored "	1	
		2
Over fifteen years, from civil life, white male		1
Over twenty years, " " " " "		1
Over forty years, " " " " "		1
Unknown, " " " " "	6	
" " " " colored females	2	
		8
Males 179; females 51; total		230

Table showing the nativity, as far as it could be ascertained, of the 3,819 persons treated.

NATIVE BORN.		FOREIGN BORN.	
District of Columbia	381	Ireland	844
New York	294	Germany	560
Maryland	229	England	90
Virginia	220	France	43
Pennsylvania	210	Canada	31
Ohio	96	Scotland	23
Massachusetts	92	Switzerland	14
Maine	38	Italy	13
Illinois	36	Denmark	10
Connecticut	34	Sweden	10
New Hampshire	32	Norway	10
Indiana	29	Poland	8
Kentucky	28	Russia	6
Michigan	28	Austria	5
New Jersey	25	Nova Scotia	5
Tennessee	19	Spain	4
Wisconsin	19	Holland	4
Vermont	18	Wales	3
Missouri	16	Portugal	3
Rhode Island	12	Hungary	3
Delaware	11	Mexico	3
North Carolina	9	Saxony	3
Alabama	6	Malta	3
South Carolina	5	Belgium	2
Iowa	4	Buenos Ayres	1
Georgia	4	Costa Rica	1
Mississippi	4	Sicily	1
Louisiana	3	British Columbia	1
West Virginia	3	East Indies, (British)	1
Florida	2	West Indies, "	1
Texas	2	West Indies, (Hayti)	1
California	2	New Brunswick	1
Choctaw Nation	2	Cuba	1
Colorado	1	China	1
Arkansas	1		
Total	1,915	Total	1,710

Native born	1,915
Foreign born	1,710
Unknown	194
Total	3,819

Table showing the form of disease under which the cases treated since the institution was opened, labored at the time of admission.

MANIA.

Acute, simple	1,310
" dipsoic	208
" periodic	86
" febrile	39
" epileptic	35
" suicidal	26
" puerperal	25
" homicidal	20
" paralytic	12
" hysterical	10
" cataleptic	5
" erotic	2
" typhomania, (Bell's disease)	2
" suicidal and homicidal	2
" kleptoic	1
	1,783

Chronic, simple	399	
" dipsoic	45	
" periodic	44	
" epileptic	40	
" paralytic	13	
" homicidal	9	
" puerperal	8	
" suicidal	5	
" hysterical	2	
" cataleptic	2	
" homicidal and epileptic	2	
" kleptoic	2	
" dipsoic and epileptic	1	
" homicidal and hysterical	1	
" " " suicidal	1	
		574

MONOMANIA.

Acute, simple	6	
Chronic, simple	14	
		20

MELANCHOLIA.

Acute, simple	186	
" suicidal	41	
" nostalgic	25	
" homicidal	2	
" periodic	2	
" epileptic	1	
" paralytic and suicidal	1	
		258
Chronic, simple	76	
" suicidal	6	
" periodic	1	
		83

DEMENTIA.

Acute, simple	269	
" paralytic	18	
" epileptic	14	
" suicidal	7	
" general paralysis	5	
" periodic	3	
" senile	3	
		319
Chronic, simple	600	
" epileptic	97	
" paralytic	46	
" senile	28	
" general paralysis	20	
" dipsoic	19	
" suicidal	6	
" periodic	3	
Chronic, paralytic and epileptic	3	
" suicidal " "	1	
" " " paralytic	1	
		824

IMBECILITY.

Chronic, simple	22	
" epileptic	3	
		25
Opium-eaters		4
Not insane		1
Whole number of cases treated		3,891
Number of re-admissions		72
" " persons treated		3,819

Of the cases admitted during the year ending June 30, 1875, there were, of—

MANIA.

Acute	82	
Chronic	50	
		132

MELANCHOLIA.		
Acute	24	
Chronic	7	
		31
DEMENTIA.		
Acute	21	
Chronic	43	
		64
IMBECILITY.		
Chronic		2
OPIUM-EATERS.		
Chronic		2
Acute, 127; chronic, 103; total		230

As far as could be ascertained, the late volunteers of the Army and Navy under treatment during the year ending June 30, 1875, entered the service from the following States:

	Late volunteers.		
	Army.	Navy.	Total.
New York	31	1	32
Ohio	28		28
Pennsylvania	19		19
Indiana	14		14
Michigan	10		10
Illinois	10		10
Wisconsin	7		7
Missouri	5		5
Connecticut	4		4
New Hampshire	4		4
Maryland	3	1	4
Massachusetts	3		3
New Jersey	3		3
Maine	3		3
Vermont	1		1
Nebraska	1		1
Kansas	1		1
Rhode Island	1		1
Virginia	1		1
Iowa	1		1
California	1		1
Tennessee	1		1
New Mexico	1		1
Kentucky	1		1
District of Columbia	1		1
Unknown	1		1
	156	2	158

Tabular statement of the time of life at which the 3,819 *persons treated since the opening of the institution became insane.*

Under ten years	59
Between 10 and 15 years	43
" 15 " 20 "	256
" 20 " 25 "	775
" 25 " 30 "	857
" 30 " 35 "	681
" 35 " 40 "	413
" 40 " 45 "	254

Between 45 and 50 years	150
" 50 " 60 "	144
" 60 " 70 "	79
" 70 " 80 "	25
" 80 " 90 "	1
Unknown	73
	3,819

Chapel service was held in the assembly-room on every Sabbath of ten months of the year, such service having been suspended for two months in order that the rear wall of the old room might be taken down and the old and new rooms be thrown into one and finished in a uniform style. The associate chaplains discharged their duties with much ability and judgment.

The usual week-day evening entertainments were given during the season, in which much valuable assistance was gratuitously rendered, mostly by members of the dramatic and musical associations of the District. It is not practicable to name each individual of the large number whose excellent performances contributed so much to the mental diversion of this household; but we think their associates in those entertainments, as talented and graceful as many of them were, will deem it just in us to mention the late Mrs. Allan Rutherford, Miss Ware, Mr. Tweedale, and Dr. Perabeau, on account of the leading parts they took in organizing those entertainments and carrying them into effect.

The average rate charged for the board and treatment of private patients was $6.87\frac{5}{7}$ per week, care having been taken, as usual, to comply with the statute which requires that private or pay patients shall not pay "less than the actual cost of their support." Of three Army officers admitted by order of the Secretary of War, and one Navy officer admitted by order of the Secretary of the Navy, three paid their board, and one paid for a private attendant. One other Army officer, received upon the permission of the Secretary of War, paid his board. Three pensioners, two males, admitted upon the order of the Secretary of War, and one female, admitted upon the order of the Secretary of the Interior, paid a part of the cost of their board and treatment; and the board of two indigent females, admitted by the Secretary of the Interior, was paid by friends, in one case as long as the patient remained in the hospital, and the other for twenty weeks.

Sixteen males and fifteen females, total thirty-one, admitted as private or pay patients, from civil life, remained under treatment at the end of the year.

Near the close of the year the commissioners of the District of Columbia removed from the hospital 21 of the 23 non-resident indigent insane persons then under treatment at the request of the District authorities, and supported from the treasury of the District. The two that remained over are still under treatment. The board, clothing and treatment of these patients have been fully paid for the year. In the last report it was stated that $4,294.38 was due the hospital from the District on the 30th of June, 1874. The portion of this bill that accrued between June 20, the date at which the administration of the affairs of the District passed into the hands of commissioners, and the 30th, inclusive, amounting to $133.57, was paid in currency, and the remainder, amounting to $4,160.81, went to the special board created to audit the indebtedness of the District, when the change in the mode of administration just referred to went into effect, and was audited and finally paid in a certificate convertible into what are known as "3.65" bonds. A small

certificate was purchased in order to make even hundreds of dollars, and both converted into bonds. The following is a full statement of the transaction:

Certificate of the board of audit		$4,160 81
Certificate purchased to make even hundreds		39 32
		4,200 13
Converted into bonds for	$4,200 00	
Lost—no fractional bonds issued	13	
		4,200 13
Received in cash, interest to February, 1875		$76 65
Paid for certificate for $39.32, at 72 per cent		28 30
Cash charged to superintendent and credited to United States		48 35

The bonds have been held by the hospital to the present time, with the hope of an advance in their market value.

The following are the farm and garden products this year, (season of 1874,) and their estimated market-value. The gross yield of the farm and garden was somewhat less than that of the previous year, on account of the partial failure of several staple products of cultivation. Several crops exceeded those of the previous year.

Apples, 170 bushels, at $1	$170 00
Asparagus, 1,563 bunches, at 10 cents	156 30
Beans, (Lima,) 120 bushels, at $2	240 00
Beans, (Lima, shelled dry,) 13 bushels, at $10	130 00
Beans, (string,) 59 bushels, at $2	118 00
Beef, (fresh,) 4,075 pounds, at 12 cents	489 00
Beet greens, 34 barrels, at $1.50	51 00
Beets, 380 bushels, at $1	380 00
Blackberries, 71 quarts, at 12 cents	8 52
Butter, 1,082 pounds, at 40 cents	432 80
Cabbage, 20,323 heads, at 8 cents	1,625 84
Cabbage sprouts, 15 barrels, at $1.50	22 50
Cantaleups, 1,257, at 10 cents	125 70
Carrots, 14 bushels, at $1.50	21 00
Celery, 261 bunches, at 15 cents	39 15
Cherries, 2,575 quarts, at 10 cents	257 50
Chickens, 196, at 60 cents	117 60
Cider, 86 gallons, at 30 cents	25 80
Corn, (green,) 1,876 dozen ears, at 12 cents	225 12
Cucumbers, 125 dozen, at 15 cents	18 75
Currants, 126 quarts, at 12	15 12
Ducks, 48, at 75 cents	36 00
Eggs, 394 dozen, at 30 cents	118 20
Egg-plants, 1,609, at 12 cents	193 08
Figs, 27 quarts, at 25 cents	6 75
Geese, 4, at $2	8 00
Grapes, 7,018 pounds, at 12 cents	842 16
Kale, 54 barrels, at $1	54 00
Lettuce, 5,194 heads, at 2 cents	103 88
Milk, 13,918 gallons, at 40 cents	5,567 20
Neat's-foot oil, 12 gallons, at $3	36 00
Okra, 7 bushels, at $4	28 00
Onions, 23 bushels, at $2	46 00
Parsley, 337 bunches, at 5 cents	16 85
Peas, 192 bushels, at $2	384 00
Pork, 8,164 pounds, at 12 cents	979 68
Potatoes, (Irish,) 540 bushels, at $1	540 00
Potatoes, (sweet,) 132 bushels, at $1.50	198 00
Quinces, 35 bushels, at $2	70 00
Radishes, 763 bunches, at 5 cents	38 15
Raspberries, 62 quarts, at 15 cents	9 30
Rhubarb, 580 bunches, at 15 cents	87 00
Seeds, (garden)	69 50
Spinach, 2 barrels, at $2	4 00

Squashes, (summer,) 495 dozen, at 20 cents	$99 00
Squashes, (winter,) 100 barrels, at $1	100 00
Strawberries, 42,171 quarts, at 12 cents	260 52
Tomatoes, 565 bushels, at $1.25	706 25
Turkeys, 21, at $1.75	36 75
Turnips, 1,062 bushels, at $1	1,062 00
Veal, 1,417 pounds, at 15 cents	212 55
Vinegar, 42 gallons, at 30 cents	12 60
Watermelons, 2,613, at 10 cents	261 30
Pigs and fowls sold alive	33 01
Hides and grease sold from beef raised	69 66
Old barrels and rags sold	83 61
Keeping six horses for hospital use	1,250 00
Total	18,292 70

The expenditures and receipts on account of the current support of the establishment, including necessary repairs and improvements, amounted to—

EXPENDITURES.

Expended for flour, meal, and crackers	$12,037 80
" " butter and cheese	8,470 78
" " meats, (besides those raised by the hospital)	24,675 22
" " poultry and eggs, (besides those raised by the hospital)	710 45
" " fish	1,914 86
" " groceries and ice	18,163 02
" " potatoes, other vegetables, and fruit	2,416 43
" " feed for stock	5,450 56
" " agricultural implements, seeds, and fertilizers; also, fruit-trees, vines, and shrubs	4,987 67
" " stock	1,662 61
" " repairs and improvements on buildings; cooking, heating, and lighting apparatus; water supply; farm and garden lands and roads	2,627 10
" " repairs to vehicles, harness, &c.; also new vehicles and harness	2,470 36
" " furniture, glass, china, and hardware	5,991 09
" " boots, shoes, findings, &c	3,561 72
" " bedding	3,523 89
" " dry-goods	8,192 06
" " books, stationery, and printing	692 17
" " fuel and lights	9,796 70
" " money refunded to private patients	546 96
" " return of eloped patients	82 50
" " postage	234 15
" " salaries and wages	38,773 34
" " medicine, surgical instruments, and liquors	1,912 29
" " patients' tickets to places of amusement	254 57
" " miscellaneous supplies	254 81
" " horseshoeing	159 50
" " pay patients	739 98
Covered into the United States Treasury	38 52
Total	160,361 11

RECEIPTS.

From the Treasurer of the United States	$140,785 00
" private pay patients for board, &c	17,167 74
" sale of pigs, hides, rags, &c	2,408 37
Total	160,361 11

Appropriations by Congress amounting to $62,956 were satisfactorily expended for the special and general repairs and improvements for which they were made. The extended assembly-room has a clear area of 78 feet by 61 feet, and will comfortably accommodate an audience of at least 600 persons—as many of the inmates as will be able to assem-

ble generally for worship, instruction or diversion. The height of the ceiling is 22 feet 3 inches. The platform is 29 feet 9 inches wide, by 24 feet 1 inch deep. It projects into the audience-room 7 feet, the remainder occupying a recess formed by small rooms on either hand and a bow in the rear wall of the extension. The accessory accommodations are three dressing and apparatus rooms, each 9 feet by 15 feet 3 inches, one other apparatus-room and one entrance-way each 9 feet 9 inches by 6 feet 2 inches, and an organ recess 16 feet 5 inches by 6 feet 10 inches. The audience-room is handsomely frescoed; its acoustic properties are excellent, and provision is made for warming and ventilating it thoroughly. The officers' quarters, large business-office, dining and store rooms, and kitchen, contained in the first, second, and basement stories of the center extension, supply urgent needs both in the medical and economical administration of the hospital. The extension of the west detached building for patients, and the re-arrangement of the heating-apparatus and ventilation of the whole structure, have not only increased its accommodations, but greatly improved their character. The other principal repairs and improvements have been the leveling of a fort on the Shepherd farm, that had remained as it was vacated at the close of the late war, and the continuation of the grading, drainage, and fertilization of the extensive agricultural and exercise grounds; the erection of a windmill to supply water to several families of employés living upon the premises, and the removal of two frame dwellings to sites more eligible than those they previously occupied; the setting of an additional duplex steam-pump; the laying of heavy 4-inch water-pipe nearly around the entire buildings, and the setting of twelve additional fire-hydrants, for the purpose of more effectually extinguishing a fire should one unfortunately occur in any one of the buildings of the institution; the addition of twelve electric time-dials to those already in use in the wards, and several circulating coils to the heating-apparatus; the improvement of the roof and ventilation of the center, east wards, and west detached buildings; the erection of a duplicate of the old fan-engine, and, by connecting the two, making a duplex engine of not less than 45 horse-power, and the repair of the steam-power boilers; the entire remodeling of the entrance-way and gate-house, and the addition of one hundred wire mattresses, and much other improved furniture, to the wards. Besides the preceding, a great amount of painting, varnishing, and oiling has been done, and many minor repairs and improvements have been made in almost every part of the establishment for the preservation of property, replacing and improving damaged and wornout furniture and fixtures, and supplying what has been found needful for the comfort and welfare of the inmates of the hospital.

The recommendation made in the report of this board for 1870–'71, and reiterated in the report for 1871–'72, that an asylum for inebriates be established in this District, or that legal provision be made for boarding a limited number of District inebriates in any one of the State institutions already in operation, is respectfully renewed. Within a few weeks there has been published a history, carefully collated by a competent physician, of the treatment, during a period of twenty-seven (27) years, of more than 10,000 inebriate prisoners in the penitentiary of the city and county of Albany, N. Y., which demonstrates the truth and entire practicability of the views upon this subject several times expressed in the reports of this institution, and the curability of inebriety by such restraint as will certainly secure total abstinence and such diligent occupation as is suited to individual capacity. The Association of Superintendents of American Institutions for the Insane, at

its recent annual meeting, passed resolutions declaratory of its opinion that institutions for inebriates ought to be established and maintained by public authority, and that the treatment of patients of this class in institutions for the insane ought to be discontinued as soon as other provisions are made for them. The desirableness of discontinuing the treatment of simple dipsomaniacs, or inebriates, in this hospital, renders the foregoing recommendation pertinent in this report.

It is much to be regretted that a bill to define the privileges and obligations of the railroad that passes, mostly upon trestle-work in the river, in front of the hospital-grounds, without legal authority, as is believed, and to protect the institution, which passed the Senate, failed to pass the House and become a law. The passage of the same, or a similar bill, at the approaching session of Congress, is earnestly recommended as a measure of self-protection on the part of the Government and of justice to the road.

The estimates already submitted for the year ending June 30, 1877, were as follows:

1. For the support, clothing, and medical and moral treatment of the insane of the Army and Navy, Marine Corps, and Revenue-Cutter Service, and of all persons who have become insane since their entrance into the military or naval service of the United States, and who are indigent, and of the indigent insane of the District of Columbia in the Government Hospital for the Insane, $155,895.

At the close of the fiscal year ending June 30, 1875, there were under treatment in the hospital 718 patients, 35 of whom paid a little more than the actual cost of their support, leaving 683 who were supported wholly by the Government. At the end of the first quarter of the current year (September 30, 1875,) there were 727 patients under treatment, 31 of whom paid their board, and 696 were supported by the United States; showing an increase in three months of 13 of the latter or dependent class of patients. At this rate of increase of the dependent patients to the end of the year for which this estimate is made, the average number to be provided for in that year would be 761. In the estimates for the current year, (1875–'76,) it is stated that 700 patients is "the extreme maximum capacity" of the hospital; and while the number under treatment on the 12th day of June last was 733, both the board and superintendent are of the opinion that it is entirely inadmissible, on sanitary grounds, to retain in the hospital, for much length of time, many if any exceeding 725 patients of all classes, unless temporary wooden buildings should be provided while permanent structures are being erected, furnished, and fitted up; and, estimating the average number of pay-patients to be 35, there will remain an average of 690 to be provided from the Treasury of the United States.

The average number of free or supported patients in the hospital in the year 1874–'75 was 645$\frac{3}{12}$; and of pay or self-supported patients, 25$\frac{5}{12}$; total average, 697$\frac{8}{12}$. The average cost of supporting both classes was $4.40 per week, and, deducting the whole amount received for the board and treatment of pay-patients from the gross receipts of the institution in the year, the average cost per week of the board and treatment of the free or Government patients was 4.25\frac{1}{4}$.

The number of pay-patients from whom something has been received in excess of the cost per patient of supporting the entire household has been reduced by the removal from the hospital of 21 transient, indigent insane persons, the most of whom had been for several years supported by the authorities of the District of Columbia; and as, on that account, and on account of the crowded condition of the house, which makes it

necessary to devote most of its accommodations to the care and treatment of Government patients, less is likely to be contributed in the near future than for some years past toward the maintenance of the establishment, the board estimates that the average cost to the Government of supporting each dependent patient will be $4.33\frac{1}{3}$ per week, at which rate it will cost, to support an average of 690 patients of this class for one year, the amount of this estimate, or $155,895. This estimate is intended to be as *close* as is consistent with the maintenance of the hospital in accordance with the just requirements of law; and the rate is less than the estimate of last year, or any year indeed since 1860, on account of the large and increasing (unless there be an exceptional failure of one or more crops) productiveness of the farm and garden, and some further reduction in the prices of supplies.

2. For enlarging and improving the gas-works, slaughter-house, drainage and laundry of the hospital, and for the erection, furnishing, and fitting up of an enlarged and improved bake-house and oven, including store-room for flour and lodgings for bakers, $15,000.

The original hospital-edifice was designed to accommodate a maximum of 350 patients; but as that number has been exceeded, the ward buildings have been enlarged from time to time, until there are now more than double the number originally provided for, who, with the necessary officers and employés, make a community of upward of 850 persons, for whom meats, bread, washing, and drainage are to be provided. In the mean time small additions only have been made to the original buildings and apparatus for furnishing these requisites of support and health, and the convenience and efficiency of these branches of the administrative service render the proposed enlargement necessary, as well as the introduction of such improvements into each as have come into use in the last few years. Taking the existing buildings and appliances as bases of these improvements, it is estimated that they can be executed for the limited sum of this estimate.

3. For general repairs and improvements, $10,000.

The sum asked under this head will be required for the painting and repairs necessary to preserve the extensive buildings of the institution on account of ordinary wear; for such repairs and additions to the furniture, bedding, fittings, and conveniences of the wards, as are constantly necessary on account of the destructive habits of many of the insane; and for such additional means and facilities for medical and moral treatment of the inmates as are suggested by experience and the constant progress in the science and art of treating mental disease.

4. For the extension of the accommodations of the hospital by the erection of a separate building for the female patients, $200,000, the entire estimated cost of such extension, finished, furnished, lighted, heated, and ventilated, complete and ready for occupation, being $395,000.

As has already being stated in this report, the original hospital-edifice and two detached buildings erected prior to 1861 were designed to accommodate a maximum of 350 patients. Since the year 1870, several additions have been made, which, together, properly accommodate 213 patients.

The hospital has, then, proper accommodations for 563 patients only. Of the 727 patients under treatment on the 30th day of September, 1875, 561 were men and 166 women. The east wing of the original structure, that occupied by the women, contains accommodations for 175 patients. The several extensions have been added to the men's wards, which, altogether, contain accommodations for 388 patients.

The outbuilding for women is now occupied by men, which takes rooms for 20 patients from the women's side and adds the same number to the men's; and 166 women occupy apartments intended to accommodate 155, and 561 men are crowded into wards that are none too large for 408, the excess on one side being 11, and on the other 153. It is impracticable to much overcrowd a few of the wards, those containing the excited and turbulent classes and those occupied by the convalescent patients; and it follows that, under the peculiar circumstances of the institution, the evils of overcrowding have to be mostly borne by a portion only of one sex, and are much more serious than they would be could the excess be distributed throughout all the wards. It will be seen that the ordinary and very serious evils of overcrowding an institution for the insane can here be no longer wholly avoided, and that the utmost vigilance is necessary to prevent distressing accidents and endemic disease. At a late annual meeting of the Association of Superintendents of American Institutions for the Insane, resolutions were unanimously adopted strongly condemnatory of the "custom of admitting a greater number of patients than the buildings can properly accommodate, which is now so common in every section of the country, as an evil of great magnitude, productive of extraordinary dangers, subversive of the good order, perfect discipline, and the greatest usefulness of these institutions, and of the best interests of the insane." This brief statement of the situation of the hospital and the opinion just quoted are thought to demonstrate the imperative necessity of the enlargement of the capacity of the institution. The question follows, what plan of enlargement will in the long run best subserve the comfort and welfare of the patients of both sexes of the national institution for the insane, and incidentally most promote that advancement in the modes and results of the medical and moral treatment of mental diseases which is taking place throughout the enlightened world? No intelligent American citizen would consent that the United States should occupy any but a foremost place in this amiable rivalry of the nations on the highest plane of humanity and science.

The accommodations of the hospital might be extended, either by further additions to the men's or west wing, by a separate building or buildings located near the present edifice, or in some distant part of the present grounds. The west wing could not be farther extended without in some degree interfering with the classification, ventilation, and light of the wards and the amplitude and convenience of the exercise-grounds of those classes who cannot often walk far from the house. Some liability to the creation of a "hospital atmosphere" and the domestication of erysipelas, low fevers, and other affections which often arise in large, crowded populations, should also be considered in determining the question before us.

The treatment of insane patients of both sexes in the same connected structure is attended with many embarrassments, occasionally, in spite of all precautions, with serious evils, and is a source of unremitting anxiety to the officers of institutions of this class. Situated as this establishment is, with the number of male patients greatly predominating over the female, and standing more in need of out-door exercise, the former only are given the liberty of the grounds, and the latter go out only when accompanied by attendants. The male and female patients are not permitted to exercise in the same parts of the grounds for obvious reasons. It will be seen that the liberty of both sexes, but especially that of the females, is necessarily much restricted by their exercise in the same grounds; and in addition to the unsuitable acquaintances that

will spring up between the sexes when treated in continuous buildings, sometimes attended with ultimate consequences much to be deplored, the surveillance necessary to render their proximity to each other as innoxious as possible is a source of considerable irritation and ill-feeling on the part of those who are the most needful subjects of it. The board of visitors and superintendent have given the important question of the most suitable manner of enlarging the hospital much consideration, and for the reasons that have now been briefly set forth they earnestly recommend the erection of a separate hospital-edifice for the female patients, upon a highly eligible site on the east side of the public road, which passes in a nearly due north and south course through the grounds of the institution, and the devotion of all the present structures exclusively to the males, who would have but two vacant beds were the whole house given up to them at this time of writing. Separated as proposed in buildings on opposite sides of the public road, and about one-third of a mile distant from each other, the males surrounded by one hundred and eighty-five acres, having a water-front for fishing, bathing, and boating; and the females by one hundred and seventy-five acres of land, the patients of each sex could enjoy as much liberty and derive as much benefit from exercise in the open air as the individual cases would be capable of, without the liability to the augmentations of morbid sexual susceptibilities, to the formation of unsuitable acquaintances, and to one of the irritations of restraint which must always, more or less, attend their proximity in the same buildings and grounds.

At the Pennsylvania Hospital for the Insane in the city of Philadelphia, the New York City Lunatic Asylum on the islands in the East River, and at the Michigan State Asylum for the Insane at Kalamazoo provision has been made for the treatment of the sexes in separate buildings, and the conductors of those institutions bear the strongest testimony to the unqualified advantages of such separation. Dr. Thomas S. Kirkbride, the very distinguished superintendent of the Pennsylvania Hospital for the Insane, writes the superintendent of this institution, "We have now had sixteen years' experience of a separation of the sexes. We have found only advantages in the arrangement, and nothing would induce us to go back to the old plan of having both sexes in the same building. Besides this, it is to be remembered that your entire building will very soon be wanted by the men, and all the arrangements connected with it now are specially calculated for that sex, while a separate building, put up especially for women, on the other side of the road passing through your farm, will prevent too great an extension of the hospital in one location. Of the advantages of the plan it seems to me there can be no doubt, and I am inclined to think that in the end it will be found more economical than any other. * * *

The evil effects of overcrowding hospitals of any kind are so well known that it would be derogatory to the character of our Government to permit one of its buildings that has done it so much credit to present an example of what is so invariably condemned." It will be seen that Dr. Kirkbride, after an experience of sixteen years in the treatment of the sexes in separate buildings, which are just about as far distant from each other as is the site of the proposed department for the women from the present buildings of this institution, not only testifies in the strongest terms to the advantages of the arrangement, but as strongly recommends that it be adopted here.

It should be acknowledged in this connection that the proposition to erect separate buildings for the female patients of this hospital, which, if properly carried into effect, will so greatly promote the welfare of its

inmates in all the coming years, originated in the very practical mind of the able and eminent Surgeon-General of the Army and the chairman of the financial and executive committee of the board of visitors. The superintendent of the hospital had long contemplated substantially this step, but thought it unadvisable to propose it until some additions were made to the original structure for the accommodation of special classes of patients; and before he had mentioned it to any one, General Barnes proposed it to him several years ago, and has since repeated the proposition a number of times.

Under this head it remains to add an explanation of the accompanying ground-plan and elevation of a separate building for women, with the reasons for the estimate of its cost that has been submitted. The plan embraces such modifications of the original hospital-building as have been suggested by an experience of twenty-three years since the draught of the latter was made. It contemplates a basement-story 8 feet 6 inches high in the clear, one-half below and the other half above the ground level immediately about the building, with a wide area and sloped embankment to render it dry and light. There will be a fresh-air duct running the entire length of the building beneath the basement-corridor which will contain the heating-coils, but no other cellar or sub-cellar. The basement story will contain the kitchen, provision store-rooms, distributing-railways, and heating-apparatus. The first or principal story will be 13 feet in the clear; second, 12 feet; the third, 11 feet; and the attic, 10 feet. It will be perceived that the several sections of the whole building are drawn one story lower than the corresponding sections of the present structure. This is done with the view of avoiding in part the fatiguing ascent and descent of flights of stairs and the disturbances arising from placing patients of the excited and noisy classes in rooms beneath and above each other; and by the necessary extension of the building to a greater length in order to gain the necessary accommodations, improve the general classification of the patients and the light and ventilation of the wards. The single-rooms are of the same size throughout, each being 10 feet 8 inches deep, by 8 feet wide, and those of the first will contain 1,109 and of the second 1,024 cubic feet. The only patients' dormitories in a third story will be in the infirmaries situated in the second sections (first transverse) at the right and left of the center, each of which will have a floor area much exceeding that of the single rooms in the wards and a higher ceiling by carrying it several feet into the roof or attic. The assembly-room will occupy the space in the second and third stories of the center in the rear of the transept, and will be entered directly from the wards as well as from the center. The attic-story of the center and wings is intended to be used as dry-goods store-rooms, sewing-rooms, and lodging-rooms for servants and extra attendants. In very cold or inclement weather a ward can be vacated by temporarily taking its inmates directly to the attic-rooms above it, while it is being cleaned and thoroughly ventilated; and by having a number of sewing-rooms in different sections of the attic-story the patients can, with special advantages, resort to them in separate classes. It is proposed to heat the building as this is heated—by the indirect radiation and hot-water circulation. The ventilation will be effected through flues in the outer walls, the vitiated air passing directly upward and out at the comb of the roof.

The original hospital edifice and two separate out-wards erected at the same time, were designed for 200 patients, and cost, furnished and fitted up, exclusive of land and out-buildings, $406,848, or at the rate

of $1,403 per patient, and we feel warranted in saying that they could not have been built in the District as well as they were for a less sum or at a less rate per patient. There has of late been considerable reduction in the prices of most descriptions of building-materials, but they are still from 10 to 15 per cent. higher than they were from fifteen to twenty years ago. The wages of mechanics and laborers, especially when employed directly upon Government work, have not undergone a corresponding reduction, and are not less than twenty per cent. higher than they were when most of the original buildings were erected. The plan of the new buildings here presented is intended for 250 patients, and built of best merchantable, hand-made bricks, (unless pressed bricks made by machinery recently invented, should prove superior to hand-made bricks in quality and equally cheap,) with plain iron or stone window-heads and sills, can be erected, furnished and fitted up complete, ready for occupancy for an advance of about 12½ per cent. upon the cost of the original buildings, or for $1,580 per patient, or $395,000 for the whole work. In submitting so low an estimate for this structure, we have considered the advantages of our local and special experience in executing similar work, and anticipated the letting of more of it to be executed by contract than was originally done. A trifle more than one-half of the whole estimate is asked for, to be expended in the year ending June 30, 1877, with the expectation that the remainder will be granted for expenditure in the following year, and that the whole work can be accomplished and the building occupied in the summer of 1878.

The enterprise that has now been proposed is one of considerable magnitude and cost, but it is thought not in either respect to exceed the duty nor the ability of the General Government. All that the United States have hitherto done for the insane, generous and enlightened as it has been, and what is now proposed, in addition, are much less than has been or is now being done by several individual States for the same class of suffering dependent humanity; and, estimated by such a comparison, the parent government should make both more costly, and more extensive provision for those who have been bereft of reason in its service, and for the insane of the national District, than it has done or is now asked to do; but the board is of the opinion that the welfare of the dependent insane of the country will in the end be best subserved by providing for them plain durable buildings, with all such internal arrangements as are best calculated to promote the comfort and health of their inmates. Each of the States of Massachusetts, New York, Pennsylvania, Ohio, Illinois, and Tennessee, is now engaged in establishing two large institutions for the insane; and the States of Connecticut, New Jersey, Wisconsin, Iowa, Minnesota, and California, are either now building or have recently built one such establishment. With one exception each of the States just mentioned had one institution of this character within its borders, and several of them had two, built, supported and controlled by the State, prior to the large additional provisions for their insane recently made or now being made. The present buildings of this hospital, and that we have asked the means to erect, would together properly accommodate 813 patients. In each of not less than five of the States double that number is provided for, in each of seven States as many, and in each of sixteen States at least half as many. The very liberal provision for the insane that has been or is being made in several of the States is not referred to for invidious comparison, but merely to show that the proposed increase and improvement of the accommodations of the national institution are likely to be considered by the people of the country, as not only the duty of the General Government, but far from

extravagant. It is evidently the judgment of our countrymen, that no people is impoverished by its needful charities, honestly and wisely established and administered.

* * * * * * *

The board desires to express its full appreciation of the strong, respectable bridge which the Government has erected across the Anacostia River, from the foot of Eleventh street east, and which renders the crossing of the river, in going to and from the hospital, safe and free from the anxiety that has so long attended it. The frequent personal communication that takes place between the hospital and the city would be much facilitated and cheapened by the extension of one of the horse-railroads of the District across the bridge and to the foot of the hill near the institution; and if, in the opinion of the very competent engineer in charge, the rails and cars of such a road will not interfere with carriage travel, we hope that such an extension will soon take place. Before a horse-railroad can enter the village of Uniontown from the south end of the bridge, it will be necessary either to adjust the grade of the Washington City and Point Lookout Railroad to the proper grade of the street, or carry the railroad over the street. As it is, that crossing is attended with considerable danger to carriage and foot travel, which ought to be remedied without unnecessary delay.

Again, and for the twentieth time, commending this great hospital and charity to the confidence and support of the Government,

We are, very respectfully, your obedient servants,

W. GUNTON,
President of the Board of Visitors.
C. H. NICHOLS,
Secretary Ex-officio.

Hon. ZACHARIAH CHANDLER,
Secretary of the Interior.

FREEDMEN'S HOSPITAL AND ASYLUM.

FREEDMEN'S HOSPITAL,
Washington, D. C., October 15, 1875.

SIR: I have the honor to present the following report of the operations of the Freedmen's Hospital and Asylum, Washington, D. C., for the year commencing July 1, 1874, and ending June 30, 1875.

The whole number of persons treated as inmates of the Freedmen's Hospital and Asylum during the year was 480.

The number remaining in hospital at last annual report was	289	
The number admitted during the year was	191	
Whole number treated in hospital and asylum		480
Of these 114 were discharged, cured	114	
Thirty were discharged, relieved	30	
And 71 died	71	
Whole number discharged and died		215
Leaving 265 in hospital and asylum June 30, 1875		265

Of this number 29 were cared for in the asylum, and 64 as out-patients, each receiving subsistence, medicines, medical attendance, and clothing.

Besides the above, this hospital has furnished medicines and medical

attendance for the Colored Orphans' Home and Asylum, consisting of about 90 orphans and a few old persons.

Dispensary patients, composed of destitute and poor persons who have called at the hospital, have been prescribed for to the number of 466.

Most of the patients in the hospital and asylum are persons who, on account of bodily infirmity, were permanently unfitted for taking care of themselves, and who originally found refuge in the various hospitals of the Freedmen's Bureau, which hospitals had been established in all the Confederate States, Kentucky, and the District of Columbia.

When that institution was closing its operations, its hospitals were discontinued, one after another, and those patients who could not be otherwise disposed of were transferred to the hospitals which were to be closed later.

In this manner the hospitals were all closed except three—one at Louisville; one at Richmond, Va., and one in the District of Columbia. Finally these three were consolidated, and the most helpless patients, who could not be humanely disposed of otherwise, were transferred to the Freedmen's Hospital and Asylum in the District of Columbia.

At the same time the Freedmen's Bureau assumed the principal support of 80 colored orphans and 11 superannuated colored women in the Colored Orphans' Home and Asylum for Aged Women, and thus the Freedmen's Hospital and Asylum had its origin.

Most of these people were formerly slaves, and a portion of them belonged to the Arlington estate.

A large majority of these people are now so helpless, either from bodily infirmity or from extreme old age, that they will require to be supported from some source for the remainder of their lives.

They were transferred to this point because no town, city, county, or State could be found which would assume the care and support of them, and they thus became strictly and legitimately the wards of the General Government, and their status is such that they can only look to the General Government for that support.

Very respectfully, your obedient servant,

G. S. PALMER, M. D.,
Surgeon-in-Chief.

The Hon. SECRETARY OF THE INTERIOR,
Washington, D. C.

REPORT

OF

THE POSTMASTER-GENERAL.

POST-OFFICE DEPARTMENT,
Washington, D. C., November 15, 1875.

SIR: The ordinary receipts of this Department during the fiscal year ended June 30, 1875, were $26,671,218.50, an increase of $299,344.80, or 1.13 per cent., over the receipts for 1874, being less than the estimate made in 1873 by $1,809,331.

To the ordinary receipts should be added the sum of $650,000 subsidies to steamship-lines, drawn from the general Treasury and expended, and $120,142.09 revenue from money-order business, making the receipts from all sources $27,441,360.57.

It is proper to state that the decrease on the estimate is accounted for by the general depression of business throughout the country, which affected postal affairs during the past year more than at any previous time, and also by the increase of the rate of postage on third-class matter, which has very materially reduced the amount of transient papers, books, &c., transmitted through the mails.

The expenditures of all kinds were $33,611,309.45, an increase of $1,484,894.87, or 4.62 per cent., over those for 1874, and less than the amount estimated in 1873 by $318,603.

Of these expenditures $1,338,319.50 were for special objects in previous years, provided for at the last session of Congress; consequently the legitimate expenditures for the past fiscal year were only $32,272,989.95, an increase over 1874 of $146,575.37, or 0.456 per cent., and less than the estimate made in 1873 by $1,656,922.50.

The amount drawn from the general Treasury and expended for subsidies to mail-steamship lines was $650,000, which amount is included in the expenditures under the head of "transportation."

The amount drawn from the general Treasury under appropriations to meet deficiencies was $6,054,646.96, from which should be deducted the sum of $1,338,319.50 referred to in a previous paragraph, which will leave, as the legitimate amount drawn on account of the past fiscal year, $4,716,327.46, against $5,259,933.55 for the fiscal year of 1873–'74, a difference in favor of 1875 of $543,606.09.

Table No. 2, accompanying the report of the Third Assistant Postmaster-General, shows the receipts and expenditures by quarters, and also the increase or decrease in each item as compared with the fiscal years of 1873–'74 and 1872–'73.

The estimated expenditures for the fiscal year ending June 30, 1877, are		$36,839,805 99
The ordinary revenues are estimated at 7 per cent. over the past fiscal year, making	$28,538,203 80	
Estimated revenue from money-order business	120,000 00	
Total estimated revenue for the fiscal year ending June 30, 1877		28,658,203 80
Excess of expenditures, to be appropriated out of the general Treasury, as a deficiency		8,181,602 19

The foregoing estimates do not include the following special appropriations, to be made out of the general Treasury:

For official postage-stamps and stamped envelopes for use of the Post-Office Department during the year	$850,000 00
For mail-steamship service between San Francisco and Japan and China, under acts approved February 17, 1865, and February 18, 1867	250,000 00

Of the appropriations for deficiencies there were unexpended on June 30, 1874, the following amounts:

For fiscal year ended June 30, 1871	$29,060 00
For fiscal year ended June 30, 1872	25,500 00
For fiscal year ended June 30, 1873	1,766,772 44
For fiscal year ended June 30, 1874	3,045,888 84
	4,867,161 28
Amount appropriated for fiscal year of 1874–'75	5,497,842 00
Total	10,365,003 28

During the past fiscal year the following amounts have been drawn on account of payments for previous fiscal years, viz:

For fiscal year of 1870–'71	$14,853 62	
For fiscal year of 1871–'72	22,106 02	
For fiscal year of 1872–'73	1,085,942 33	
For fiscal year of 1873–'74	2,039,314 33	
For fiscal year of 1874–'75	4,400,000 00	
A total of		7,562,216 30
Amount of deficiency appropriations undrawn and available for payments of indebtedness to June 30, 1875		2,802,786 98

Against the above sum there are chargeable the following unsettled accounts, estimated:

Balances due foreign countries	$93,815 47	
Mail-service under contract or recognized, not yet reported for payment	672,755 14	
Mail-service unrecognized	762,489 79	
Total		1,529,060 40
Leaving, after settlement of all liabilities to June 30, 1875, a net balance on deficiency appropriations of		1,273,726 58

Of the amount drawn during the past year from the appropriation for the fiscal year of 1872–'73, the sum of $1,000,000 was for additional

compensation to railroads, under a re-adjustment of pay for transportation of the mails, (see sec. 2, Statutes at Large, vol. 18, p. 414,) and of the amount drawn from the appropriation for 1873–'74, the sum of $300,000 was for adjustment of postmasters' salaries prior to June 30, 1874. (See sec. 3, Statutes at Large, vol. 18, p. 414.)

The number of ordinary postage-stamps issued during the past fiscal year was 682,342,470, valued at	$18,271,479 00
Newspaper and periodical stamps, 2,209,215	815,902 47
Stamped envelopes, plain, 72,285,150	2,046,111 35
Stamped envelopes, request, 54,631,000	1,791,686 25
Newspaper-wrappers, 22,850,250	286,679 74
Postal cards, 107,616,000	1,076,160 00
Official postage-stamps, 18,495,940	834,970 25
Official stamped envelopes and wrappers, 12,845,000	354,522 18
Aggregating 973,275,025	25,477,511 24

The following table shows the increase in stamps of all kinds, stamped envelopes, newspaper-wrappers, and postal cards over the previous year:

Description.	Fiscal year ended June 30, 1875.	Fiscal year ended June 30, 1874.	Increase.	
			Value.	Per ct.
Ordinary postage-stamps	$18,271,479 00	$17,275,242 00	$996,237 00	5.76
Stamped envelopes, plain	2,046,111 35	1,927,952 30	118,159 05	6.12
Stamped envelopes, request	1,791,686 25	1,733,738 40	57,947 85	3.34
Newspaper-wrappers	286,679 74	220,502 06	66,177 68	30.01
Postal cards	1,076,160 00	910,790 00	165,370 00	18.15
Total			1,403,891 58	
Official postage-stamps and stamped envelopes and wrappers	1,189,492 43	1,769,301 86		
Deduct for decrease in last item			579,809 43	40.62
			824,082 15	
Add newspaper and periodical stamps	815,902 47		815,902 47	
Aggregate	25,477,511 24	23,837,526 62	1,639,984 62	6.87

During the past fiscal year the Department has suffered the loss of only ten packages of stamps, stamped envelopes, and postal cards, of the value of $256.30.

DEAD-LETTERS.

The operations of the Dead-Letter Division of the Third Assistant Postmaster-General's Office are fully shown by the tabular statements appended to that officer's report, which are briefly summarized as follows:

The total number of letters of all kinds received during the year was 3,628,808, an average of 11,878 for each working-day, of which 31,779 contained $61,769.14 in current funds; 14,225 contained commercial paper to the nominal value of $2,997,847.53; 135,027 contained

jewelry, samples of merchandise, photographs, postage and revenue stamps, receipts, bills of lading, and souvenirs of great variety; 214,119 were foreign letters, which, under the provisions of the postal conventions, were returned to the countries of origin unopened; and 3,233,668 contained nothing of value, which, with the 534,339 letters of all kinds on hand July 1, 1874, make the total number of letters disposed of during the year, 4,163,147.

These letters are also classified, without regard to their contents, as follows: Ordinary mail-letters, 2,416,112; local or drop, 488,600; returned from foreign countries, 106,237; returned from hotels, 31,240; held for postage, 318,604; misdirected, 61,252; without address, 5,963; ship, 2,412; registered, 5,857; foreign, 210,377; and 516,493 of ordinary mail and drop letters on hand from last fiscal year.

A table has also been prepared showing the number, contents, and disposition of all the registered letters not delivered, and received at the Dead-Letter Office during the year, from which it appears that of the 5,942 letters (including 85 on hand July 1, 1874) received, 5,556 were delivered to the proper owners.

During the year, 5,428 applications for supposed lost letters were received, and in 1,950 cases the letters inquired for were found and delivered.

The amount taken from unclaimed letters during the year and deposited in the Treasury to the credit of this Department was $11,080.

REGISTERED LETTERS.

The only available means for estimating the growth of the registered-letter system is found in the issues of registered-package envelopes to postmasters, as from want of sufficient clerical force the reports of the number of letters registered at the various post-offices in the country have not been classified and recorded.

It appears that 2,922,000 envelopes were issued during the year ended June 30, 1874, while during the last fiscal year, 3,379,900 were issued, an increase of over 15 per cent., which probably represents the growth of the system.

To this Department, in the transmission of packages of postage-stamps, stamped envelopes, postal cards, and other supplies for postmasters, the system is invaluable, as out of a total number of 359,462 registered packages transmitted during the year, the value of which was $25,477,511.24, only ten packages of stamps, to the value of $256.30, were lost, and some of these it is presumed were destroyed by fire.

The fee for registering letters has been made uniform at ten cents for all parts of the world.

A system for the exchange of through-pouches, prepared exclusively for registered matter, has been inaugurated, and is now in successful operation on the routes between Boston and New Orleans, and New York and San Francisco.

The law regulating the registration of letters should be amended, in order that the system may be simplified, and at the same time rendered more efficient, and such suggestions as will tend to accomplish these results will at the proper time be submitted to Congress.

CONTRACTS.

There were in the service of the Department on the 30th of June, 1875, 6,280 contractors for the transportation of the mails on public routes.

There were at the close of the year, 2,170 "special" offices, each with a mail-carrier whose pay from the Department is not allowed to exceed the net postal yield of the office.

Of public mail-routes in operation there were 8,283, (of which 871 were railroad; being an increase of 47 routes of this class over the previous year,) aggregating in length 277,873 miles; in annual transportation, 133,822,216 miles; in annual cost, $15,353,369. Adding the compensation of railway-post-office clerks, route-agents, mail-route messengers, local agents, and mail-messengers, amounting to $2,931,801, the aggregate annual cost will be $18,285,170.

The service was divided as follows:

Railroad-routes: Length, 70,083 miles; annual transportation, 75,154,910 miles; annual cost, $9,216,518—about 12.26 cents per mile.

Steamboat-routes: Length, 15,788 miles; annual transportation, 3,958,852 miles; annual cost, $684,130—about 17.28 cents per mile.

Other routes, upon which the mails are required to be conveyed with "celerity, certainty, and security:" Length, 192,002 miles; annual transportation, 54,708,454 miles; annual cost, $5,452,721—about 9.97 cents per mile.

There was an increase over the preceding year in length of routes of 8,776 miles; in annual transportation, of 5,194,740 miles; and a decrease in cost of $48,688. Adding the increased cost for railway-post-office clerks, route, local, and other agents, $149,899, the total increase in cost was $101,211.

The railroad-routes have been increased in length 2,349 miles, and in cost $626,855, against an increase last year of 4,277 miles in length, and $1,332,467 in cost.

RE-ADJUSTMENT OF PAY ON RAILROAD-ROUTES.

The re-adjustment, under the act of March 3, 1873, of the rates of pay for mail-service on railroad-routes, from which the necessary returns had not come to hand when the tables (E and F) for the last annual report were prepared, and also on routes in States in which a new contract term commenced July 1, 1875, together with the adjustment of the rates on certain new routes, is shown in Table F, herewith, made up for the year ending September 30, 1875. The new routes adjusted number 72. The

re-adjustment includes 235 routes, or parts thereof, of which the rates were increased on 182 and decreased on 53, the net result being an increase of $408,691.16 in the amount of annual pay. Adding this sum to the $1,254,327.46 increase by re-adjustment the preceding year, the aggregate increase of pay in the two years under the act of March 3, 1873, is $1,663,018.62. That act appropriated half a million of dollars specifically for the increase of pay for which it provided. It is to be observed, however, that, for several years prior to the passage of that act, the regular appropriation for "inland transportation" included an allowance for the increase of expense by re-adjustment of pay on railroad-routes caused by the natural growth in the bulk of the mails and the necessary improvements of the accommodations for their distribution while in transit. As remarked in the last annual report, this natural increase in 1872 amounted to $354,865.94; and if the re-adjustment of pay on routes in the New York and New England section for the contract term commencing July 1, 1873, had not been postponed to await the receipt of the new returns required by that act, the natural increase would have amounted in 1873, at the percentage of increase of the regular appropriation for "inland transportation" for that year over the cost for the preceding year, to $385,029.54, and in 1874 to $419,040.48. The natural increase for 1875, at six and nine-tenths per cent. advance on that for 1874—the rate of increase of the appropriation for "inland transportation" for that year over the preceding—would have been $447,954.27. The natural increase for the three years would thus have amounted to $1,252,024.29. The actual increase is $1,886,842.17, an excess of $634,817.88, which is only $134,817.88 more than the half million which Congress specifically appropriated for the purpose by the act of March 3, 1873. In the estimate made last year of the probable effect of the passage of the act, from which it appeared that the whole excess of cost over the appropriations would amount to $679,308.52, there was an omission to note the difference of $161,205.99 between the natural increase for 1873, namely, $385,029.54, and the actual increase for that year, namely, $223,823.55, this difference resulting from the aforementioned postponement of the re-adjustment of the rates on railroad-routes in the New York and New England section which would have been made that year if the act had not been passed. In that estimate also an allowance of $344,021.54 was made to cover the re-adjustment on routes from which the necessary returns had not then been received. This was based on the supposition that the rate of increase on the routes remaining to be heard from would be the same as on those already re-adjusted. It is apparent, however, from the returns since received from a large portion of those routes, that, in the average, they diminish instead of increasing the rates of compensation. Thus, whereas the natural increase for 1875, as above estimated, would be $447,954.27, the actual increase is only $408,691.16, a diminution of $39,263.11. Deduct-

ing this sum, together with the $161,205.99 omitted, and the $344,021.54 for further re-adjustment now shown to have been unnecessarily allowed in the estimate last year, amounting in all to $544,490.64, from the $679,308.52 excess shown by that estimate, there remains only the $134,817.88 above found as an actual excess thus far over the regular appropriations and the specific appropriation of half a million made by the act of March 3, 1873, excluding entirely "the unexpended balance of the amount appropriated for deficiencies in the revenues of the postal service for the fiscal year ending June thirtieth, 1873," authorized to be used for this purpose by act of March 3, 1875. And as on the small number of routes still remaining to be heard from the re-adjustment, when made, will probably diminish the aggregate compensation, even this small excess is liable to still further reduction.

POST-ROUTE MAPS.

During the year new maps have been prepared and published of the States of Virginia and West Virginia, North Carolina and South Carolina, Alabama and Mississippi, Louisiana and Texas, Nebraska and Colorado. Some of these maps are, however, to be regarded as preliminary until more reliable and systematic surveys are made, to constitute a basis for correct compilation. New editions of the various maps previously issued, embracing all the Northern and Middle States, (except Minnesota,) have also been published for use by postmasters and special agents, and to supply the increasing requirements of the railway mail-service for maps to secure the proper distribution of the mails. Post-route maps are in course of preparation of the States of Minnesota, Georgia, Florida, Arkansas and the Indian Territory, Kentucky and Tennessee, Kansas, and of some of the Territories.

FINES AND DEDUCTIONS.

The amount of fines imposed upon contractors and deductions made from their pay for failures and other delinquencies for the year was $110,809.36, and the amount remitted during the same period was $11,032.31, leaving the net amount of fines and deductions $99,777.05.

MAIL BAGS, LOCKS, AND KEYS.

A table appended to this report exhibits, in detail, the number, description, and cost of mail-bags and mail-catchers, and of mail locks and keys, purchased under contracts, during the fiscal year last ended. The total number of mail-bags purchased and put into service amounted to 80,050; of which 67,500 were for the transmission of printed or second and third class matter, and 12,550 for letters, or first-class matter: the whole, with purchases of mail-catchers and mail-bag labels, costing $107,996.83, or $16,906.92 less than the amount expended the preceding year for like objects.

RHODES HOUSE OXFORD

The table referred to shows the cost of new mail-bags, but does not include the repairs of old mail-bags and some other items of expense incident to the use of mail-bags; all of which, however, are included in the total expenditure under the head of mail-bags, as exhibited in the annexed report of the Auditor.

The total cost of new mail locks and keys, including a supply of new locks and keys for all the street letter-boxes connected with the free-delivery system, amounted to $31,840.

MAIL DEPREDATIONS.

The number of recorded complaints during the past year of missing letters of value is 5,645, of which 2,677 were registered and 2,968 unregistered. The registered letters contained, as is alleged, currency, bonds, drafts, &c., amounting to $76,216.24, and the unregistered, valuable contents amounting to $75,997.16. Of the 2,677 registered letters reported as lost, 1,083 were satisfactorily accounted for, 911 actually lost, and 683 remain under investigation.

During the year, 307 persons were arrested, charged with various violations of the postal laws, the greater portion of whom were not connected with the postal service. The employés of the Department thus arrested were classified as follows: Postmasters, 41; assistant postmasters, 15; post-office clerks, 23; route-agents, 4; local agents, 3; mail-carriers, 16; mail-messengers, 2; letter-carriers, 11; in all, 115. Of persons arrested who were not in the employ of the Department, numbering in all 192, the majority were tramps and vagabonds and burglars of the lowest order of intelligence. The following disposition was made of the cases: convicted, 107; acquitted, 9; prosecution abandoned, 5; *nolle prosequi* entered, 9; not indicted, 4; escaped, 4; forfeited bail, 1; died before trial, 2; dismissed, 9; awaiting trial, 157.

RAILWAY POST-OFFICES.

A tabular statement hereto appended shows that the number of railway post-office lines in operation on the 30th of June, 1875, was 62, extending over 16,932 miles of railroad routes; a decrease of 1 line, and an increase of 518 miles, compared with the preceding year. The number of clerks employed was 901, at an annual cost of $1,122,640; an increase of 51 clerks, and $64,440. Upon 13,810 miles the service is performed daily, and upon 3,122 miles twice daily, equivalent, in all, to 20,054 miles each way daily. Counting all the lines both ways, the aggregate service is 40,109 miles daily.

FOREIGN MAILS.

The total number of letters exchanged during the year with foreign countries was 25,135,581; a decrease of 3,443,264 from the number reported for 1874. Of this number, 12,854,333 were sent from, and 12,281,248 were received in, the United States. This large decrease

was, in part, owing to the fact that no account was taken of the letters exchanged with Canada under the new arrangement with that country during the last half of the fiscal year.

The number of letters (single rates) exchanged in the United States and European mails was 18,952,537; a decrease of 1,014,505 from the number reported for 1874.

The total postage on the letters exchanged with foreign countries amounted to $1,713,766.90; a decrease of $341,036.91 from the amount reported for 1874.

The aggregate amount of postage (sea, inland, and foreign) on the letter-mails exchanged with the United Kingdom of Great Britain and Ireland, Germany, France, Belgium, The Netherlands, Switzerland, Italy, Denmark, and Sweden and Norway, was $1,383,329.69; a decrease of $55,470.96 from the amount reported for 1874. The postages on letters sent exceeded the postages on letters received from the same countries in the sum of $14,036.15, being 1 per cent. of the aggregate amount. The postage collected in the United States amounted to $783,364.79, and in Europe to $599,964.90; the excess of collections in the United States being $183,399.89, or 13½ per cent. of the entire postage-receipts on European correspondence.

Comparing the year 1875 with the year 1874, the rate of decrease in the total number of letters exchanged with foreign countries was 12 per cent., and the rate of decrease in the amount of postages thereon was 16½ per cent. The decrease in the number of letters exchanged with European countries was 5 1/12 per cent., and the decrease of postages thereon amounted to ⅔ per cent.

The total weight of mails exchanged during the year with European countries was 1,904,493 pounds, (over 952 tons;) a decrease of 30,810 pounds, (or 15 tons,) compared with the previous year. The weight of letter-correspondence was 386,540 pounds, and of printed matter and samples 1,517,953 pounds. The aggregate weight of mails sent to Europe was 902,429½ pounds, and of mails received from Europe 1,002,063½ pounds. The weight of letter-correspondence sent to Europe was 201,940 pounds, and of letter-correspondence received from Europe 184,600 pounds. The weight of printed matter and samples sent to Europe was 700,489 pounds, and of printed matter and samples received from Europe 817,464 pounds.

The cost of the United States transatlantic mail-steamship service for the year 1875 was $228,098.25; being a decrease of $7,285.56 from the cost of the same service for the year 1874. The payments made to the respective steamship-lines carrying mails to Europe, receiving the sea-postages as full compensation for the service, were as follows:

The Hamburg American Packet Company, for 50 trips from New York to Plymouth, Cherbourg, and Hamburg	$46,436 [illegible]
The North German Lloyd, of Bremen, for 69 trips from New York to Southampton and Bremen, and 20 trips from Baltimore to Bremen	39,993 00

The Inman line, for 17 trips from New York to Queenstown	$11,368 74
The White Star line, for 36 trips from New York to Queenstown	27,029 13
The Liverpool and Great Western, (Williams & Guion line,) for 28 trips from New York to Queenstown	20,833 87
The Cunard line, for 52 trips from New York to Queenstown and Liverpool, and 44 trips from Boston to Queenstown and Liverpool	52,317 05
The Eagle line, for 21 trips from New York to Plymouth, Cherbourg, and Hamburg	18,402 65
The Canadian line, for 53 trips to Liverpool	4,876 68
The Red-Star line, for 14 trips from Philadelphia to Belgium	42 51
American Steamship Company, for 49 trips from Philadelphia to Queenstown	2,315 74
The Netherlands Steam-Navigation Company, for 4 trips from New York to Rotterdam	86 86
The Anchor line, for 13 trips from New York to Glasgow	794 55
The General Transatlantic Steamship Company, for 26 trips from New York to France	1,924 68
The National line, for 1 trip from New York to England and 1 trip from Boston to England	154 88
The Snow & Burgess line, for 1 trip from New York to England	1,386 31
The Thayer & Lincoln line, for 1 trip from Boston to England	84 74
Total	228,098 25

The United States postages on mails conveyed to and from the West Indies, Panama, Central America, Brazil, Mexico, Bermuda, Nova Scotia, New Granada, Venezuela, and Ecuador, amounted to $154,650.78, and the cost of the sea-conveyance thereof was $96,971.11. The United States postages on mails exchanged with Brazil, Japan and China, the Sandwich Islands, New Zealand, and Australia, by means of the subsidized lines of direct mail-steamers, amounted to $56,049.77. The total cost of the United States ocean-mail-steamship service for the year 1875 (including $650,000 paid from special appropriation for steamship service to Japan and China and to Brazil) was $986,536.66.

Arrangements have been made with the owners of the Occidental and Oriental line of steamers, (an English line,) plying monthly between San Francisco, Yokohama, and Hong-Kong, for the conveyance of the mails to Japan and China for the sea-postages as compensation for the service. This, in connection with the subsidized monthly service of the Pacific Mail-Steamship Company, secures a regular semi-monthly transportation of the mails to Japan and China.

The contract with the United States and Brazil Mail-Steamship Company, authorized by act of Congress approved May 28, 1864, for the conveyance of a monthly mail from New York to Rio de Janeiro, Brazil, for a term of ten years, at an annual compensation of $150,000, expired by limitation on the 30th of September, 1875, and the company has withdrawn its steamers from that route.

Arrangements have been made for the conveyance of mails to Brazil by the King line of British steamers, recently organized for a monthly service between Baltimore and Rio de Janeiro, allowing as compensation for the service the sea-postage on the mails conveyed; but, the regular

sailing for October having been omitted, it is not known whether this service, the only existing one to Brazil, will be regularly maintained.

In the absence of a direct mail-service to Brazil, all correspondence for that country and adjacent South American States has to take the circuitous route via England, and thence by British mail-packets to Rio de Janeiro, thus involving very serious delays. The maintenance of one or more lines of direct mail-steamship communication with Brazil is very important to our postal and commercial interests. While there exists at present no regular line of mail steamers plying between this country and Brazil, I am credibly informed there are as many as ten lines of direct steamers—English, German, and French—plying regularly between European and South American ports.

In the last annual report, reference was made to the International Postal Congress which assembled at Berne, Switzerland, on the 15th of September, 1874, and to the fact that a postal convention had been agreed upon and signed by the delegates from all the countries represented in that congress, with the exception of France.

A treaty concerning the formation of a General Postal Union, a copy of which is annexed, was signed at Berne on the 9th of October, 1874, by the delegates from the United States, Germany, Austria, Hungary Belgium, Denmark, Egypt, Spain, Great Britain, Greece, Italy, Luxemburg, Norway, the Netherlands, Portugal, Roumania, Russia, Servia, Switzerland, Sweden, and Turkey. It was subsequently duly approved and ratified by the governments of each of these countries, and the acts of ratification were exchanged at Berne on the 3d of May, 1875, on which date France gave its adhesion to the treaty, on certain conditions and reservations assented to by the other governments, the principal of which was that the treaty should not enter into effect, so far as France was concerned, until the 1st of January, 1876. As to all the other countries, it was carried into operation on the 1st of July, 1875. The interchange of correspondence between the countries comprising the General Postal Union has been greatly simplified by the uniformity of postage-rates and of other conditions of exchange established throughout the Postal Union territory. This territory comprises the United States of America, the whole of Europe, Asiatic Turkey, Asiatic Russia, and Egypt, including also Iceland and the Faroe Islands as part of Denmark, the Balearic Isles, the Canaries, the Spanish possessions on the northern coast of Africa and the Spanish postal establishments on the western coast of Morocco as making part of Spain, Algeria as making part of France, the Island of Malta as part of the postal administration of Great Britain, and Madeira and the Azores as making part of Portugal.

The general union rate for letters is fixed at 25 centimes (French) or its nearest equivalent in the money of each country on each prepaid letter not exceeding 15 grams in weight, and for letters exceeding that weight an additional rate is charged for every 15 grams or fraction of 15 grams. The postage on unpaid letters is double that levied in the

country of destination on prepaid letters. The postage on post-cards is fixed at one-half of that on paid letters, prepayment compulsory. The prepaid postage on printed matter of all kinds and patterns of merchandise is fixed at 7 centimes (French) for each single packet not exceeding the weight of 50 grams, the option being reserved to each country, as a measure of conversion, in order to suit its monetary requirements, of levying a rate higher or lower than 7 centimes, provided it does not exceed 11 centimes or go below 5 centimes. Each country retains all the postage it collects on the postal union correspondence of every kind, both on the prepaid sent or the unpaid received, thus dispensing with all accounts between the several post departments of the union upon the international correspondence exchanged between them.

The other provisions of the treaty simplify the details and unify the conditions of postal intercourse. Uniform transit rates at reduced charges, for the conveyance of closed mails by land and sea, are established within the territory of the union, but these rates are not applied to the Indian mails or to the mails conveyed across the Territory of the United States by the railways between New York and San Francisco, which, on account of the exceptional character of the services, are excepted to form the object of special arrangements between the post departments concerned. Those countries of the postal union which have not adopted the decimal metrical system of weight are allowed to substitute for the rating of postage half an ounce avoirdupois for 15 grams, and two ounces for 50 grams, and are also authorized to raise the limit of weight for a single newspaper to 4 ounces, thus permitting our metropolitan papers, which exceed the postal union limit of 50 grams, to pass in the mails throughout the postal union at a single postage-charge.

Provision was also made for the organization of a central office of the general postal union, under the supervision of the post department of Switzerland, the expenses of which will be borne by all the offices of the contracting states. This office is charged with the duty of collecting, publishing, and distributing information of every kind which concerns the international postal service; of giving, at the request of parties concerned, an opinion upon questions in dispute; of making known proposals for modifying the detailed regulations; of notifying alterations adopted; of facilitating operations relating to international accounts, and, in general, of considering and working out all questions in the interests of the postal union.

The uniform rates of postage levied and collected in the United States on correspondence for or from the countries comprising the General Postal Union are as follows:

For prepaid letters, 5 cents per 15 grams, ($\frac{1}{2}$ oz.)
For unpaid letters received, 10 cents for 15 grams, ($\frac{1}{2}$ oz.)
For postal cards, 2 cents each.

For newspapers, if not over four ounces in weight, 2 cents each.

For books and other printed matter, patterns, &c., 2 cents per each weight of two ounces or fraction of two ounces.

For the registration-fee on all correspondence, 10 cents.

The general postal union treaty substitutes a single postage for the numerous and complex rates previously charged under the separate conventions with foreign countries, and organizes in a simple and uniform manner the postal relations between twenty-three countries, comprising a vast majority of the civilized nations of the world. It provides for the entry into the union of countries not yet forming part of it, and the period is not distant when a cheap and uniform postage, with total abolition of international postage accounts, will obtain universal application in all countries of the world in which the postal service is regularly organized. Such a unification of the conditions of postal intercourse throughout the world must prove a most efficient means of advancing the general prosperity and of promoting the peace and fraternity of nations.

I deemed it important, for the sake of uniformity, to apply the general postal union rate of postage, as far as practicable, to the correspondence sent to or received from other countries; and accordingly an order was made on the 13th of May, 1875, under the authority given by section 165 of the act approved June 8, 1872, reducing, from July 1, 1875, the single rate of United States postage from 10 to 5 cents on letters sent to or received from foreign countries with which different rates had not been established by postal convention or other arrangement. This reduction applied chiefly to correspondence sent to or received from the West Indies, Central America, and countries of the west coast of South America, and has effected an aggregate yearly saving to correspondents in this country of not less than $50,000. It is also my purpose to adopt, as far as practicable, the general postal union letter-rate in all future separate postal conventions or arrangements with foreign countries.

A new postal arrangement has been concluded with the Dominion of Canada, for the unification of the postal systems of the two countries. This arrangement, a copy of which is appended, was carried into full operation on the 1st of February, 1875. Under its provisions frontier-lines are disregarded, and the postal services performed on each side treated as one entire service, so that correspondence of every kind prepaid at the domestic rates of the country of origin is received, forwarded, and delivered in the country of destination free of postage. No accounts are kept on the international correspondence, each post-department retaining all the postage it collects on mail-matter of every kind sent to the other for delivery. This simple arrangement reduces postage-charges to the domestic rates of the country of origin, disregards frontier-lines, so far as the postal service is concerned, and brings our people into closer social and business relations with their Canada neighbors.

An agreement has been concluded with the Empire of Japan, modi

fying the provisions of the postal convention with that country, by providing for the full prepayment to destination of the postage on printed matter of all kinds, patterns, and samples of merchandise. This agreement, a copy of which is appended, went into operation on the 1st of July, 1875.

An amended article to replace article 3 of the postal convention between the United States and the colonial government of New South Wales has been executed by the respective post-departments, a copy of which is annexed. This amended article provides for the full prepayment of printed matter, &c., to destination in either country.

Negotiations are in progress for the conclusion of a postal convention with the colonial government of Queensland, on the basis of the existing convention with New South Wales, and also for a postal convention with the republic of Chili, based on the postal principles adopted in the General Postal Union Treaty of Berne.

Propositions are also pending for a postal convention with the governments of Peru and of Bermuda.

This Department is also in correspondence with the British post-office in relation to an increase of the United States territorial transit rates on the British closed mails transported by rail between New York and San Francisco. These closed mails are of great bulk and weight, averaging several tons by each dispatch, and the rates of transit paid by Great Britain under the postal convention of November, 1868, are wholly insufficient to defray the actual cost of their transportation by rail across our continent a distance of over three thousand three hundred miles. This Department, as a plain business proposition, takes the ground that if it transports mails for other countries over this long and exceptionally expensive route, we should require, to the extent that they do not perform an equivalent service, that they should pay the bills.

APPOINTMENTS.

The report of the appointment-office shows the following:

Number of post-offices established during the year	2,313
Number discontinued	1,060
Increase	1,253
Number in operation June 30, 1874	34,294
Number in operation June 30, 1875	35,547
Number filled by appointments of the President	1,547
Number filled by appointments of the Postmaster-General	34,000
Appointments were made during the year—	
On resignations	6,017
On removals	974
On changes of names and sites	187
On deaths of postmasters	380
On establishment of new post-offices	2,313
Total appointments	9,871
Number of cases acted on during the year	11,175

The number and aggregate compensation of special agents, route-agents, mail-route messengers, railway post-office clerks, and local agents in service during the year ended June 30, 1875, were—

48	special agents*	$160,923 49
901	railway post-office clerks	1,122,840 00
987	route-agents	943,200 00
225	mail-route messengers	147,470 00
125	local agents	96,580 00
2,286	Total	2,471,413 49

The following table shows the number of employés in the Post-Office Department; also the number of postmasters, contractors, clerks in post-offices, route-agents, railway post-office clerks, and other officers in service on June 30, 1874, and June 30, 1875, respectively:

DEPARTMENTAL OFFICERS AND EMPLOYÉS.	1874.	1875.
Postmaster-General	1	1
Assistant Postmasters-General	3	3
Superintendent of Foreign Mails	1	1
Superintendent of Money-Order System	1	1
Chief Clerk to the Postmaster-General	1	1
Chief of Division of Dead-Letters	1	1
Chief of Division of Depredations	1	1
Chief of Division of Postage-stamps, Stamped Envelopes, and Postal Cards	.....	1
Topographer for the Department	1	1
Chief clerks of Bureaus	5	5
Disbursing officer and superintendent of building	1	1
Clerks, laborers, watchmen, &c	349	367
	364	384
OTHER OFFICERS AND AGENTS.		
Postmasters	34,294	35,547
Contractors	6,232	6,250
Clerks in post-offices	4,228	4,467
Letter-carriers	2,049	2,185
Route-agents	936	987
Railway post-office clerks	850	901
Mail-route messengers	211	225
Local agents	124	125
Special agents	76	68
Total in service	49,364	51,177

No additions have been made during the year to the number of free-delivery offices. The service was, however, extended in five large cities by discontinuing the smaller offices in and adjacent to them, substituting branch offices, and extending the carriers' delivery, in accordance with the policy announced in my last report.

The general results of the service make a most gratifying exhibit, and clearly indicate its usefulness and popularity. For the first time since its establishment the aggregate postage on local matter exceeded the

* Other special agents charged to separate appropriations.

total expense. For the fiscal year ended June 30, 1874, the deficiency of local postage to meet the expenses was $191,214.75. This year the excess of postage over the expense was $67,517.55. The increase in the cost of the service was 4 per cent. The increase in the postage on local matter was 21 per cent.

The aggregate results were as follows:

		Increase over preceding year.
Number of offices	87	.....
Number of letter-carriers	2,195	146
Mail-letters delivered	179,083,468	13,063,098
Mail postal cards delivered	18,313,565	7,312,756
Local letters delivered	48,839,237	3,659,942
Local postal cards delivered	16,026,212	7,068,106
Newspapers delivered	68,454,476	11,985,894
Letters collected	187,950,641	10,052,167
Postal cards collected	28,203,468	11,905,143
Newspapers collected	27,330,407	5,767,971
Whole number of pieces handled	574,201,474	70,815,077
Pieces handled per carrier	261,595	15,921
Total cost of service	$1,880,041.99	$77,345.58 (or 4 per cent.)
Average cost per piece in mills*	3.26	.....
Average cost per carrier*	$853.95	.....
Amount of postage on local matter	$1,947,559.54	$336,077.88 (or 21 per ct.)
Excess of postage on local matter over total cost of service	$67,517.55	.....

*Based on the aggregate ($1,674,411.71) paid carriers, including incidental expenses at the several offices.

On taking charge of the Department I found too great an inequality in the salaries paid to carriers. The division of the free-delivery offices into two classes, on the basis of population—the first comprising cities having at least 100,000 inhabitants, and the second cities having a less population—was retained as a fair classification.

The annual salary of carriers entering the service at offices of the first class was fixed at not exceeding $700, and at offices of the second class at not exceeding $600, and an increase authorized, on certificate of postmaster to the faithfulness and efficiency of carriers, of $100 a year in each class, until the maximum of $900 in the first and of $800 in the second is reached.

This adjustment of salaries is believed to be as fair and satisfactory as the varied circumstances of so extended a service will admit.

A tabular statement of the operations of the service at each office will be found in the Appendix.

POSTAL MONEY-ORDER SYSTEM.

The whole number of money-order offices in operation at the close of the fiscal year ended June 30, 1874, was 3,069. During the year ended

June 30, 1875, 346 new offices were established and 14 discontinued, making the number in operation during the entire year 3,401. Five offices were discontinued, to take effect June 30, 1875. On the 5th of July following, 299 new money-order offices were put in operation, and on the 1st of October one of the five offices discontinued at the close of the fiscal year was re-established, making the present number of money-order offices 3,696. Of the additional offices established since July 1, 1875, one was a station of the Boston office.

The number of domestic money-orders issued during the last year was 5,006,323, the aggregate value of which was $77,431,251.58. The number of such orders paid was 4,952,747, amounting in value to $76,865,353.75; to which is to be added the amount of orders repaid to the remitters, $496,337. Total of payments, $77,361,690.75; excess of issues over payments, $69,560.83.

The total amount of fees received by postmasters for the issue of domestic money-orders was $493,011.44.

The business of the year as given above shows a gain of $3,006,396.87, or 4.04 per cent., in the amount of orders issued; a gain of $3,151,534.50, or 4.24 per cent., in the amount of orders paid; and a gain of $31,629.14, or 6.85 per cent., in the amount of fees received, over the like transaction of the preceding year. The ratio of increase is much less than that for the year ended June 30, 1874. It is believed that this lessened rate of increase is mainly attributable to the financial depression, felt more or less during the entire year by all branches of industry throughout the country, and which has affected the increase of the money-order system very largely in the direction of its employment for business purposes. This is indicated by the average amount for which orders have been issued during the year, which is $15.46, being less by $1.36 than the average for the previous year.

There were 20,690 duplicate money-orders issued during the year. Of these, 19,713 were issued in lieu of orders which had been lost in the mails or which had failed to reach the payee in due time by reason of imperfect or erroneous address; 677 were issued in lieu of orders alleged to have been lost by the remitters or payees; 43 were issued to the remitters of orders, payment of which had been stopped under the authority of section 3929 of the Revised Statutes of the United States, because drawn in favor of conductors of fraudulent lotteries or gift enterprises; 289 were in lieu of orders rendered invalid because not presented for payment until more than one year after the date of issue; 20 were in lieu of orders made invalid by reason of having received more than one indorsement. The number of duplicates issued during the year was 3,711 greater than the number issued during the previous year.

The revenue-account of the domestic money-order system, as adjusted and reported by the Auditor, is as follows:

RECEIPTS.

Fees for money-orders issued		$493,011 44
For premiums on drafts		1,705 83
Total		494,717 27

EXPENDITURES.

Commission to postmasters and allowances for clerk-hire	$354,655 77	
Allowances to postmasters for remittances lost in transmission by mail	399 00	
Incidental expenses	19,520 41	
Total		374,575 18
Excess of receipts over expenditures		120,142 09

This amount of revenue is greater by $14,943.97 than that for the fiscal year ended June 30, 1874; being an increase of 14.2 per cent.

Under existing law, post-office blanks of every description are furnished exclusively by the Congressional Printer; hence the cost of money-order blanks used by the postmasters is not included in the foregoing statement of expenditures, nor does it embrace the expense of Department clerk-hire and stationery for money-order service, which are paid out of regular appropriations.

By the act of March 3, 1875, the schedule of fees for the issue of domestic money-orders was increased, to take effect July 1, 1875, in accordance with the recommendation contained in the last annual report. Before that time, the fees for the issue of money-orders were as follows, to wit: For an order not exceeding $10, five cents; over $10 and not exceeding $20, ten cents; over $20 and not exceeding $30, fifteen cents; over $30 and not exceeding $40, twenty cents; and over $40, twenty-five cents; but by the act above mentioned the fee for any order not exceeding $15 was fixed at ten cents, and over $15 and not exceeding $30, at fifteen cents. The fees for orders of larger amounts remain unchanged.

It is believed that this increase in the fees for money-orders will yield, during the current fiscal year, a gross revenue equal to the entire amount of expenditures of all kinds incurred on account of the money-order system, including the cost of Department clerical labor and of printing, blanks, &c.

The money-order funds that accumulate at offices which issue orders to a greater amount than they pay are transmitted to certain of the larger offices designated as depositories. When the postmaster is unable to obtain national-bank drafts for the purpose, the funds are forwarded by mail in registered packages. During the year the sum of $54,642,575 of surplus funds has been transmitted through the mails. Seventy cases of remittances, amounting to $12,066.61, reported as having been lost, were under investigation during the year, twenty-two of which, amounting to $4,155, were pending at the close of the pre-

vious year, and two, amounting to $153, were cases of loss during that year, but were not brought to the notice of the Department until after the publication of the last annual report; making the reported losses of the fiscal year $7,756.61; being $1,255.91 greater than those of the preceding year. In eight cases, amounting to $399, credit was allowed the postmasters by whom the remittances had been made; in five cases, amounting to $1,090, the remitting postmasters had been required to make good the sums claimed to have been forwarded by them; in sixteen cases, the amount, $2,702, was recovered by special agents; and forty-one cases, amounting to $7,875.61, are still pending.

The amount of orders drawn upon certain offices is greater than the amount received by them from the issue of orders. To enable such offices to make prompt payments they are allowed credits, to a designated amount in each case, with the postmaster at New York, and are furnished with a limited number of blank drafts to draw against them, as the exigencies of their business may require. The postmaster at New York has paid drafts of this character to the amount of $6,796,825. In the Pacific States postmasters who required assistance have been furnished with funds to the amount of $55,823.65 by the postmaster at San Francisco, Cal., and $33,857 by the postmaster at Portland, Oreg.

Out of the whole number of orders paid, the payment of 27 was alleged to have been made to individuals fraudulently personating the payees and forging their signatures, or by other unlawful or improper means, being at the rate of one alleged erroneous payment out of 183,435 payments.

Fifty-one claims for re-imbursement on account of wrongful payments have been under consideration during the last year, twenty-four of which were for orders the payments of which had been effected in prior years. In seven of these claims the amount of the orders, $147.25, was recovered by special agents and paid to the rightful owners; in sixteen cases, amounting to $368.18, the paying postmasters were, after careful investigation, held responsible, and, under instructions from the Department, have effected payment to the proper payees out of their own resources; in six cases, amounting to $113, the wrongful payments were found to have been made through no fault of the paying postmasters, and they were, therefore, furnished with funds by the Department to make proper payment; in one case the amount, $5, was, after due examination, found to have been improperly paid through the fault of the remitter and of the issuing postmaster, and they, accordingly, made the amount good to the payee; in another case, amounting to $25, the payee was for a like reason made to bear the loss. Twenty claims, amounting to $654.24, are still pending.

The number of orders issued in this country payable in Switzerland during the last year was 2,759, amounting to $68,548.05, and the number originating in that country, which have been paid here, was 1,080, amounting to $29,135.78. As compared with the transactions of the

previous year, these figures show a decrease of $3,739.23, or 5.17 per cent., in the issues, and an increase of $7,913.62, or 37.28 per cent., in the payments. The fees received amounted to $1,929.05, and the expenses to $850.78. From the accompanying statement of the Auditor it will be seen that after the payment of all balances due Switzerland on the exchange of money-orders between the two countries during the year, a net revenue of $679.11 accrued to the United States. The number of orders issued in this country for payment to beneficiaries in the United Kingdom during the last year was 64,172, amounting to $1,149,382.29, and the number originating in that country which have been paid here was 23,993, amounting to $324,542.80. These figures show, in comparison with the like transactions of the preceding year, a decrease of $341,938.02, or 22.92 per cent., in the issues, and an increase of $20,769.14, or 6.83 per cent., in the payments. The number of orders issued in this country for payment in Germany during the last year was 35,319, amounting to $746,644.54, and the number originating in that country paid here was 17,677, amounting to $620,756.76, showing, as compared with the business of the previous year, an increase of $45,009.81, or 6.41 per cent., in the issues, and of $85,540.04, or 15.98 per cent., in the payments. The fees received for the issue of British money-orders amounted to $34,986.25, and the commissions to postmasters, clerk-hire, incidental expenses, and miscellaneous items amounted to $23,703. The amount of fees received for the issue of German money-orders amounted to $20,498.25, and the commissions to postmasters, clerk-hire, incidental expenses, and miscellaneous items amounted to $10,170.92.

An exact statement of the revenue of the last fiscal year from the exchange of money-orders with Great Britain and Germany cannot, at present, be furnished by the Auditor, as a final adjustment of the accounts of the last quarter of that year has not yet been reached by him and the proper accounting officers of those countries. That from the British business of the preceding year is reported by him at $11,374.72, and that from the German business at $9,130.88.

A postal convention was concluded at Washington on the 8th of June, 1875, a copy of which is hereto annexed, for the exchange of postal money-orders between the United States and the Dominion of Canada. The exchange of money-orders in pursuance of the provisions of this convention was put in operation August 2, 1875. From that date to the 23d of October, inclusive, orders amounting to $45,347.55 were issued in this country for payment in Canada; and orders amounting to $42,860.39 were received from that country for payment in the United States.

The money-order department, the annual transactions of which have reached about eighty millions of dollars, shows an apparent profit of about one hundred and twenty thousand dollars, though it is really in arrears more than that sum if the clerk-hire and stationery required for the business, and now charged against the postal revenues, were trans-

ferred to this account, where they properly belong. The money-order business is nothing more or less than Government banking for the benefit of the public, and those who avail themselves of its benefits should pay its current expenses. Congress at the last session advanced the fees on small money-orders to a point at which it is believed it will, as it should, for the current year and hereafter, pay its own expenses.

AMERICAN STEAMSHIP-LINES.

The fact that but one line of steamships carrying our flag is employed in conveying the United States mails across the Atlantic, and none whatever to South America, is humiliating to the just pride of every American citizen. This line makes regular weekly trips from Philadelphia toLiverpool, and carries a small mail in a satisfactory manner for the postages as compensation for the service; but the great bulk of our mails for Europe is carried by steamers under foreign flags, sailing from the port of New York on Tuesdays, Wednesdays, Thursdays, and Saturdays of each week. As a matter of national pride, as an aid to the revival of American commerce, and as a means of supplying an efficient steam-marine, available for immediate use by the Government in case of war, provision should be made for the transportation of our mails on important ocean-routes in steamships officered and manned by our own citizens and sailing under our own flag.

It is believed that the payment of a moderate mail compensation in excess of the postages now allowed under the provisions of the general law would enable our citizens to establish and maintain steamship-lines across the Atlantic and to South American ports which would prove remunerative to the proprietors and promote the general prosperity of the country. A reasonable allowance for a line to the west coast of South America would assure regular mail communications by American steamers with our sister republics on that coast, and a moderate mail compensation for a line to Japan and China will doubtless continue the mail-service to those countries in American ships after the termination of the existing subsidy contract, which will expire on the 31st of December, 1876. I think it safe to say that the sum of $500,000 per annum, now granted as a subsidy to the Japan and China line for a single monthly service on that route, would, in addition to the postages on the mails conveyed, be quite sufficient, judiciously apportioned between the respective routes, to maintain an efficient mail-service by steamers sailing under our flag on all the important ocean-routes which should be occupied by lines of American steamers.

STRAW BIDS.

The officers of this Department are subjected to great annoyance, and the Department itself to great pecuniary loss, by the prevalent system of "straw-bidding" on long and expensive routes. Several stringent

laws have been enacted with a view to the eradication of the evil, but they have signally failed to accomplish the desired result; interested parties, in the teeth of oaths and penalties, still combining together and employing various devices to prevent fair competition and to secure undue advantage by fraud. Under the present statute, in the case of failing bidders and contractors, the Postmaster-General is compelled to go up the list of actual bidders and tender the service to the next lowest bidder *seriatim* until one is found who will consent to contract; or, if the price is considered to be too high, to re-advertise, meanwhile performing the service by temporary contract. It is found in actual experience that many whose names appear on these lists are wholly irresponsible, often the drivers and agents of the old contractors, who make use of them merely for the purpose of retaining the routes in their own grip.

This evil, which annually involves the Department in the loss of many hundreds of thousands of dollars, can, in my judgment, be effectually removed by such a change in the law as will authorize the Postmaster-General, on the failure of any accepted bidder, to offer the contract as at present to the next lowest bidder on the list, if in his judgment the bid be not too high, and, if this next lowest bidder declines to enter into contract, to offer to contract, at any price not exceeding said next lowest bid, with a person not a bidder, and, in case no contract can be made with any party at this price, to go on up the list in like manner, always giving the bidder the first chance. In this way will the Postmaster-General be enabled to command the entire field of contractors, the bidders having no control, after refusing to take the contract at the price named.

RAILWAY POSTAL SERVICE.

No antagonisms or serious differences of opinion have occurred during the last year between the Department and the railroad corporations. The Department pays the railroad companies for transportation of the mails about ten millions of dollars annually, and they, in return, are offering all the facilities at their command, and in a manner which indicates the utmost cordiality between them and the Government, and every disposition to advance the interests of the Department. Their compensation is now based upon the weight of mails carried. Many of the most intelligent gentlemen controlling these corporations feel that it would be more equitable to pay by space. In the estimate made for the committee last year, it was found that while the space basis would increase the pay of several hundred roads, generally of the larger class, it would reduce it very materially on many of the smaller and weaker ones, and the Department hesitated to advocate a measure likely to bring so much antagonism.

During the last few months a new impetus has been given to the railway postal service, and new facilities to the business of the country, by

the establishment of fast-mail lines. Railway post-office cars, in connection with passenger-trains, are now transported at a speed hitherto unattained in the service. Upon one of the largest lines has been placed a postal railway-train under the entire control of the Post-Office Department, carrying no passengers. All these new post-office cars bear the seal of the United States and of the Post-Office Department. It is believed that at no distant day the business of the Department will be so great as to induce the railroad companies to run similar trains from New England to the Gulf, and from the Atlantic to the Pacific.

The following table shows the cost per pound for transporting mails on ten of the leading routes of the country, calculated from the latest returns of the weights of mails and accommodations provided for their distribution, and the rates of pay fixed on those returns:

Routes.	Distance.	Cost per pound.	Remarks.
Between—	*Miles.*	*Cents.*	
New York and Washington	228	1.47	
New York and Boston	241	1.42	
Chicago and Saint Louis	283	4.72	Via Springfield.
Cincinnati and Chicago	310	4.15	Via Indianapolis, La Fayette, and Kankakee.
New York and Cincinnati	757	6.17	Via Philadelphia, Pittsburgh, and Columbus.
New York and Chicago	952	6.03	Three routes; mean distance.
New York and Saint Louis	1,063	11.12	Via Philadelphia, Pittsburgh, Columbus, Indianapolis, and Vandalia.
New York and New Orleans	1,445	23.32	Via Washington, Lynchburgh, Va., Cleveland Tenn., and Atlanta, Ga.
New York and Galveston	2,086	30.40	Via Saint Louis, Sedalia, Denison, and Houston.
New York and San Francisco	3,357	33.13	Three routes; mean distance.

The cost is greater, in proportion to distance, on the longer lines, in consequence of the lighter average weight of the mails; and on different parts of the longer lines the same disproportion exists, for the same reason, the rates of pay for mail-service on railroads being greater, in proportion to weight, on routes carrying the less amounts. Thus, on the line between New York and Galveston, while on the 90 miles between New York and Philadelphia the cost per pound is only 0.54 cent, on the 50 miles between Houston and Galveston it is 1.2 cents; and while on the 353.6 miles between Philadelphia and Pittsburgh the cost per pound is only 2.28 cents, on the 337.55 miles between Denison and Houston it is 7.56 cents, the average weight of mails per day between New York and Philadelphia being 32,850 pounds, and between Philadelphia and Pittsburgh 21,647 pounds, while between Houston and Galveston it is only 1,918 pounds, and between Denison and Houston 2,181 pounds.

The Lake Shore and Michigan Southern Railroad from Dunkirk to Chicago is common to two of the three routes between New York and

Chicago. The other, via Philadelphia and Pittsburgh, runs over the Pennsylvania and the Pittsburgh, Fort Wayne and Chicago Railroads. The combined average weights between New York and Dunkirk amount to more than 70,000 pounds per day, the average on each route being swelled by heavy local mails, and on the New York Central and Hudson River Railroad by mails from the east coming on at Albany. The average weight per day between Dunkirk and Chicago is less than 28,000 pounds, being diminished by mails passing off at several points, as Cleveland and Toledo; and between Pittsburgh and Chicago the average weight is less than 6,000 pounds per day.

SPECIAL AGENTS.

A new system has been adopted to some extent in regard to the appointment and disposal of special agents. This force is now concentrated, as far as practicable, with headquarters at a few prominent points; and appointments have been made, and will continue to be made, almost exclusively from the employés already in some other branch of the service, who, by efficiency, ability, and thorough knowledge of post-office laws and rules, are enabled to become much more quickly versed in the delicate duties required of these officers than would otherwise be possible. Special agents represent exclusively, and are responsible only to, the Postmaster-General, and ought to be entirely adapted by nature and training to the severe and peculiar work imposed upon them.

I would repeat the recommendation made by my predecessor in his annual report for the fiscal year ended June 30, 1873, that any person be permitted, without additional charge, to write a form of presentation in any book, pamphlet, magazine, periodical, or on any other matter of the third class; and, also, that the sender of any package be permitted, without additional charge, to write his or her name and address on the outside thereof, with the word "From" above or preceding the same, so as to inform the person addressed of the name of the sender, and to write briefly on any package the number and name of the articles in closed.

Congress at its last session gave the privilege to members of both Houses to send free through the mails, under such rules and restrictions as the Postmaster-General might prescribe, certain public documents, until the commencement of the next session. The weight of these documents was estimated by the Department at the time to be from two to three hundred tons. Our mail-transportation has now reached such proportions that this printed matter has been distributed without causing any delay in the transportation and delivery of the ordinary mails, and with no perceptible increase of cost or labor.

TRANSIENT PRINTED MATTER.

I recommend that the postage on transient newspapers and periodicals, books, printed matter of all sorts, lithographs and maps, sheet-

music, photographs, and manuscripts designed for publication shall be reduced to one cent for each two ounces or fraction thereof, which was the rate before the enactment of the law advancing it during the closing hours of the last Congress.

NEWSPAPER POSTAGE.

The act of June 23, 1874, requiring prepayment in stamps of postage on newspapers and periodical publications mailed from known offices of publication or news-agencies, and addressed to regular subscribers or news-agents, went into effect on the 1st of January, 1875, and from present indications it will realize about $1,000,000 for the first calendar year. This is not a material variation from the average results of the old law, though during the last year in which this latter was in operation the amount was increased by the payment of postage on newspapers circulating within the county of publication—a requirement that was discontinued at the end of one year. While, therefore, there has been no increase in the aggregate receipts, there has been a large net gain by saving the commissions on collections allowed by the old law, as under the present law the great bulk of postage is paid at the large offices, whose salaries are not affected by this item. Under the old law there was no check to insure collections at the office of destination, and the consequence was that much matter went unpaid; and it is a satisfaction that, under the present more equitable mode, the universal collections have made up for the reduction in the rates.

The new system has worked so admirably, and has given such general satisfaction, that no change is deemed necessary.

Full information as to the manner of executing the law, with more specific statements of its results, will be found in the accompanying report of the Third Assistant Postmaster-General.

COMPENSATION OF POSTMASTERS.

Under the present law, which bases the compensation of postmasters of the fourth class upon the sale of stamps, loss has been inflicted on the revenues of the Government by sales of stamps to be used elsewhere, particularly in large cities, where salaries have reached the maximum provided by law. Many officials have been dismissed for violating the rules of the Department in this respect; but it is impossible, so large is the number, for the Department to prevent wrong practices, or even to any great extent to keep them in check. I recommend that the compensation of postmasters of the fourth class be based upon the business of their respective offices, as determined by the cancellation of stamps, the account to be duly sworn to for each quarter and returned to the Sixth Auditor.

There is a great want of equity in the compensation of postmasters of the first, second, and third classes. Under the present law, postmasters in small cities and towns, who are required to give a very

moderate bond, and whose business also is not large, may receive the maximum salary. In the larger cities, like Boston, Philadelphia, and Chicago, postmasters doing a postal business of hundreds of thousands of dollars per annum, a money-order business of millions, and giving bonds to the extent of two hundred thousand dollars, receive no greater compensation than that paid in a great majority of the small cities. In many places the salary of the postmaster is the largest in the place, presidents, cashiers, secretaries, and other officers of corporations, whose duties require greater abilities, and whose positions entail vastly greater responsibilities, receiving less. This state of things encourages, and sometimes leads to, an unseemly scramble for these offices. If the salaries at the smaller offices are not excessive, those of the large cities are certainly too low. I find postmasters as a class to be efficient, capable, and attentive, beyond my expectations, and their salaries should bear some proportion to their duties.

Cases are said to exist, however, where few or no duties are actually performed by the postmaster. A law compelling postmasters whose net income is, say, one thousand dollars or more, to give their entire attention to the duties of their office, or, failing in this, to employ some person to perform them at their own and not at the Government's expense, would be most undoubtedly beneficial to the service. I have made, and shall continue to make, sobriety an indispensable requisite in every person within my control in all branches of the service.

The Post-Office is a business Department, and should be run on business principles.

POSTAL REVENUES AND EXPENDITURES.

The postal revenues during the last fiscal year have sympathized with the prevalent depression in all branches of trade, showing an increase over the previous year of only 1.13 per cent., which is the smallest increase for many years, and which has induced me to be very moderate in estimating the expected revenues for the year ending June 30, 1877. Wishing to be on the safe side, estimates have been submitted which show an expected deficiency of $8,181,602.19. These have been based upon existing laws and upon the existing state of things. If business revives and expands, as it must if we may judge the future by the past, and if the laws in relation to compensation of postmasters are modified in accordance with the recommendations of this report, the deficiency for that year will be very much less than the estimates.

The deficiency of the Post-Office Department should by no sound rule of business increase in percentage if it must in amount. If my expectations should prove correct for the year ending June 30, 1877, there will be no increase in the percentage of deficiency, but, on the contrary, a decrease. Placing the estimate of the revenues at the smallest amount, and of the expenditures at the largest, an increase is shown in

the percentage of the deficiency of only 19.39, against 24.65, which was the estimate of the percentage of increase of the deficiency of last year over that of its predecessor. A wide gap at the end of a year between receipts and expenditures, and on the wrong side of the ledger, is anything but a pleasant fact for a business man to confront. With proper watchfulness and economy in this Department, always requiring maximum service at minimum cost, as in any other business, this gap between expenditures and receipts can be gradually closed, and in time be made to disappear altogether. Important as it is to reduce the deficiency, it must not be forgotten that in the sparsely-settled portions of the South and West the expenditures for mail-service must, in many instances, exceed the receipts two or three, and sometimes ten fold. It is desirable on all accounts that our country should be settled by intelligent people, and with this end in view the pioneers should enjoy frequent and regular mail-communications with the more populous sections. Probably there is no tax our people will more cheerfully bear, provided they can feel certain that the money has been judiciously expended, than that made necessary by providing first-class postal facilities throughout the entire extent of our magnificent domain.

Very respectfully, your obedient servant,

MARSHALL JEWELL,
Postmaster-General.

The PRESIDENT.

PAPERS

ACCOMPANYING

THE REPORT OF THE POSTMASTER-GENERAL.

No. 1.—Estimates for expenditures for the fiscal year ending June 30, 1877.

Office of the Postmaster-General:		
Mail depredations and special agents	$160,000 00	
Advertising	103,000 00	
Preparation and publication of post-route maps	35,000 00	
Total		$298,000 00
Under the First Assistant Postmaster-General:		
Compensation to postmasters	7,500,000 00	
Clerks in post-offices	3,650,000 00	
Payments to letter-carriers	2,100,000 00	
Wrapping-paper	20,000 00	
Wrapping-twine	50,000 00	
Marking and rating stamps	10,000 00	
Letter balances and scales	7,000 00	
Rent, light, and fuel	450,000 00	
Office-furniture	35,000 00	
Stationery	55,000 00	
Miscellaneous and incidental items	145,000 00	
Total		14,022,000 00
Under the Second Assistant Postmaster-General:		
Inland transportation	17,548,000 00	
Railway post-office clerks	1,309,447 29	
Route-agents	1,050,000 00	
Mail-route messengers	172,800 00	
Local agents	109,521 72	
Mail-messengers	729,186 98	
Mail locks and keys	20,000 00	
Mail-bags and mail-bag catchers	200,000 00	
Total		21,138,955 99
Under the Third Assistant Postmaster-General:		
Postage-stamps	$147,762 00	
Expenses of agency	6,900 00	
Stamped envelopes and newspaper-wrappers	535,878 00	
Expenses of agency	16,300 00	
Postal cards	216,760 00	
Expenses of agency	6,100 00	
	929,700 00	
Registered-package envelopes, locks, and seals	40,000 00	
Office-envelopes	40,000 00	
Dead-letter envelopes	2,150 00	
Ship, steamboat, and way letters	7,500 00	
Fees to United States attorneys, marshals, clerks of courts, and counsel necessarily employed by special agents of the Post-Office Department, subject to approval by the Attorney-General	7,500 00	
Engraving, printing, and binding drafts and warrants	1,500 00	
Miscellaneous items	2,500 00	
Total		1,030,850 00

Under the Superintendent of Foreign Mails:		
Transportation of foreign mails	$300,000 00	
Balances due foreign countries	50,000 00	
Total		$350,000 00
Total estimated expenditures		36,839,805 99
Amount which will be provided by the Department from its own revenue, accruing from postages and other sources, estimated		28,658,203 80
Excess of expenditures to be provided by appropriation out of the general Treasury		8,181,602 19
Special appropriations to be made out of the general Treasury:		
For official postage-stamps and stamped envelopes, for use of the Post-Office Department during the year		850,000 00
For mail-steamship service between San Francisco, Japan, and China		250,000 00
Total amount to be provided out of the general Treasury		9,281,602 19

EDWARD W. BARBER,
Third Assistant Postmaster-General.

POST-OFFICE DEPARTMENT,
APPOINTMENT OFFICE,
Washington, D. C., October 19, 1875.

SIR: Agreeably to your request, I submit herewith estimates of the appropriations necessary for the fiscal year ending June 30, 1877, under the following heads, viz:

For compensation to postmasters	$7,500,000 00
For clerks in post-offices	3,650,000 00
For letter-carriers	2,100,000 00
For wrapping-paper	20,000 00
For twine	50,000 00
For marking and rating stamps	10,000 00
For letter balances and scales	7,000 00
For rent, fuel, and light	450,000 00
For office-furniture	35,000 00
For stationery	55,000 00
For miscellaneous and incidental items	145,000 00
Making in the aggregate	14,022,000 00

The estimates for compensation to postmasters, for pay of clerks in post-offices, and for pay of letter-carriers are increased, but the amounts are deemed necessary to provide for growth of the service.

Accompanying this is a tabular statement, marked A, giving more definite information.

I am, sir, respectfully, your obedient servant,

J. W. MARSHALL,
First Assistant Postmaster-General.

Hon. E. W. BARBER,
Third Assistant Postmaster-General.

Comparative statement showing the estimate, the appropriation, and the expenditure for the items named below for the fiscal year ended June 30, 1875, with the per centum of increase or decrease of expenditures, with appropriations for the same during that period; also the amounts appropriated for the several items for the fiscal year ending June 30, 1876, with the per centum of increase or decrease of the same compared with the expenditures of the previous fiscal year, together with the estimates for the same items for the year ending June 30, 1877, with the per centum of increase or decrease for the same compared with the appropriation for the fiscal year ending June 30, 1876.

Items.	Estimate for the fiscal year ended June 30, 1875.	Appropriation for fiscal year ended June 30, 1875.	Expended during the fiscal year ended June 30, 1875.	Per centum of increase or decrease of expenditure over appropriation for fiscal year ended June 30, 1875.		Appropriation for the fiscal year ended June 30, 1876.	Per centum of increase or decrease over expenditures for the fiscal year ended June 30, 1875.		Estimate for the fiscal year ending June 30, 1877.	Per centum of increase or decrease over appropriation for the fiscal year ending June 30, 1876.	
				Increase.	Decrease.		Increase.	Decrease.		Increase.	Decrease.
For compensation to postmasters	$6,500,000	‡$7,100,000	$7,348,123 10	3.49	.....	$7,000,000	.....	4.97	$7,500,000	7.14	.....
For clerks in post-offices	3,250,000	‡3,400,000	3,414,811 26	0.44	.....	3,500,000	2.49	.....	3,600,000	2.8	.....
For payments to letter-carriers	2,000,000	1,900,000	1,879,210 11	.....	1.09	2,000,000	6.42	.....	2,100,000	5.0	.....
For wrapping-paper	27,000	27,000	11,567 10	.....	57.16	25,000	116.13	.....	20,000	.....	20.00
For twine	48,000	48,000	43,811 57	.....	8.72	55,000	25.54	.....	50,000	.....	9.09
For marking and canceling stamps	9,000	9,000	5,943 23	.....	33.97	10,000	68.27	.....	10,000	.....	.....
For letter-balances	3,000	‡33,000	19,449 94	.....	41.06	3,000	84.57	.....	7,000	133.33	.....
For scales, special estimate	30,000										
For rent, fuel, and light	660,000	660,000	389,638 85	.....	40.96	500,000	28.39	.....	450,000	.....	.10
For furniture	$20,500					$35,000			$35,000		
For stationery	60,000	66,500	152,139 23	128.78	.....	50,000	54.46	.....	55,000	.....	.....
For miscellaneous items						150,000			145,000		
						$235,000			$235,000		
Total	12,593,500	13,243,500	13,264,693 69	0.16	.....	13,328,000	0.48	.....	13,979,000	4.83	.....

Post-Office Department appropriation bill, statutes 1873–'74, ch. 456, p. 231 ..... $6,500,000
Deficiency bill, statutes 1874–'75, section 2, p. 413, (compensation to postmasters) 300,000
Deficiency bill, statutes 1874–'75, section 3, p. 414, (retroactive salaries to postmasters) 300,000
7,100,000

‡ Post-Office Department appropriation bill, statutes 1873–'74, ch. 456, p. 231 ..... $3,250,000
Deficiency bill, statutes 1874–'75, section 2, p. 413 150,000
3,400,000

‡ Post-Office Department appropriation bill, statutes 1873–'74, ch. 456, p. 231 ..... $3,000
Special appropriation, statutes 1874–'75, ch. 1, p. 291, (scales for post-offices) 30,000
33,000

§ For annual compensation to postmasters $7,049,935 77
On account of retroactive salaries to postmasters ... 298,187 33
7,348,123 10

APPOINTMENT OFFICE, POST-OFFICE DEPARTMENT, *October* 20, 1875.

Statement of payments made under sundry heads, charged to miscellaneous account for fiscal year ended June 30, 1875.

For allowances to postmasters for office-repairs, gas-fixtures, telegraphing, and miscellaneous items	$95,907 91
For stationery in post-offices	38,623 58
For preparation and publication of post-route maps	30,357 91
For post-office envelopes	20,754 23
For registered-package envelopes	37,168 50
For official stamped envelopes	1,838 51
For publication of postal guides	19,674 35
For fees to United States marshals	1,014 65
For fees to attorneys	3,000 00
For fees to clerks of courts	1,328 67
For moieties to informers in cases of violation of postal laws	1,200 00
For law-books for use of the Post-Office Department	1,288 21
For engraving, printing, and binding drafts and warrants	543 30
For postal expenses of United States consuls	594 94
For miscellaneous items	582 81
	253,877 57

EDWARD W. BARBER,
Third Assistant Postmaster-General.

No. 3.—*Estimate of indebtedness of the Post-Office Department for fiscal year ended June 30, 1875, not yet adjusted.*

Balances due foreign countries		$93,815 47
Mail-service under contract or recognized, but not yet reported for payment		672,755 14
Mail-service unrecognized:		
Fiscal year ended June 30, 1874	$29,081 76	
Fiscal year ended June 30, 1875	733,408 03	
		762,489 79
		1,529,060 40

EDWARD W. BARBER,
Third Assistant Postmaster-General.

Postage-stamps, stamped envelopes, newspaper-wrappers, and postal cards issued during the fiscal year ended June 30, 1875.

Description.	Quarter ending September 30, 1874.	Quarter ending December 31, 1874.	Quarter ending March 31, 1875.	Quarter ending June 30, 1875.	Total.
Ordinary postage-stamps.					
One-cent	28,373,200	34,206,700	38,451,300	29,921,100	130,952,300
Two-cent	13,738,800	15,808,500	17,883,100	21,982,800	69,413,200
Three-cent	109,825,800	116,605,600	118,961,600	115,932,500	461,325,500
Five-cent				363,180	363,180
Six-cent	2,801,650	2,758,700	3,197,400	2,892,450	11,648,200
Seven-cent	349,800	425,700	415,000	381,400	1,571,900
Ten-cent	899,550	1,043,230	1,081,780	1,435,690	4,460,250
Twelve-cent	257,550	310,000	334,500	418,175	1,320,225
Fifteen-cent	113,760	107,960	212,400	199,260	633,380
Twenty-four-cent	86,525	35,175	44,525	105,550	271,775
Thirty-cent	108,830	74,030	51,170	102,890	336,910
Ninety-cent	20,090	8,710	9,200	7,650	45,650
Value	$4,255,288 00	$4,547,810 00	$4,746,412 00	$4,721,969 00	$18,271,479 00
Newspaper and periodical stamps.					
Two-cent		470,700	69,795	49,060	589,555
Three-cent		280,800	33,930	23,365	318,095
Four-cent		272,900	26,600	25,665	325,165
Six-cent		173,250	27,345	25,380	225,975
Eight-cent		51,250	14,000	14,405	79,655
Nine-cent		29,000	7,590	5,210	41,730
Ten-cent		89,150	28,610	32,410	150,170
Twelve-cent		84,400	22,340	19,785	126,525
Twenty-four-cent		53,750	20,845	17,820	92,415
Thirty-six-cent		18,300	12,280	8,585	39,165
Forty-eight-cent		17,700	10,940	8,190	36,830
Sixty-cent		21,750	10,675	11,381	43,806
Seventy-two-cent		5,700	7,025	6,725	19,450
Eighty-four-cent		4,950	6,850	5,957	17,757
Ninety-six-cent		12,750	10,505	9,910	33,165
One dollar and ninety-two cent		4,225	9,500	6,337	20,062
Three-dollar		6,969	6,768	7,222	20,959
Six-dollar		2,585	3,544	3,173	9,302
Nine-dollar		1,151	2,611	1,606	5,368
Twelve-dollar		1,350	2,548	2,184	6,082
Twenty-four-dollar		554	1,590	1,046	3,190
Thirty-six-dollar		319	1,009	343	1,671
Forty-eight-dollar		191	831	305	1,327
Sixty-dollar		376	640	780	1,796
Value		$253,434 00	$321,088 70	$241,379 77	$815,902 47
Postal cards.					
One-cent	24,481,000	26,420,500	28,010,000	28,704,500	107,616,000
Value	$244,810 00	$264,205 00	$280,100 00	$287,045 00	$1,076,160 00
Ordinary stamped envelopes.					
One-cent	3,592,750	4,331,000	4,274,500	3,876,000	16,074,250
Two-cent	555,000	739,000	570,500	741,250	2,605,750
Three-cent	13,105,050	13,064,950	13,814,800	13,363,800	53,348,500
Six-cent	29,500	57,800	38,400	84,750	210,450
Seven-cent	250	750	1,250	1,000	3,250
Ten-cent	16,250	11,000	250	1,750	29,250
Twelve-cent		100	100	6,000	6,200
Fifteen-cent		200	600	1,000	1,800
Twenty-four-cent		350	1,100	1,100	2,550
Thirty-cent		350	600	1,000	1,950
Ninety-cent			100	1,100	1,200
One-cent wrappers	5,866,500	5,822,750	5,749,750	2,430,750	19,869,750
Two-cent wrappers	100,000	110,000	194,250	2,576,250	2,980,500
Value	$569,654 76	$583,163 97	$588,605 50	$591,366 86	$2,332,791 09
Stamped envelopes bearing a request to return letter.					
One-cent	297,000	312,000	335,500	281,000	1,225,500
Two-cent	341,000	304,000	362,500	375,000	1,382,500

Postage-stamps, stamped envelopes, &c.—Continued.

Description.	Quarter ending September 30, 1874.	Quarter ending December 31, 1874.	Quarter ending March 31, 1875.	Quarter ending June 30, 1875.	Total.
Stamped envelopes bearing a request, &c.—Continued.					
Three-cent	13,101,250	12,917,500	13,020,750	12,794,000	51,833,500
Six-cent	47,000	48,000	45,600	42,000	182,000
Ten-cent				500	500
Twelve-cent		1,000			1,000
Value	$458,872 60	$452,160 70	$444,346 05	$436,306 90	$1,791,686 25
Official postage-stamps.					
One-cent	87,300	162,500	201,600	177,100	628,500
Two-cent	81,200	109,100	103,350	192,400	486,050
Three-cent	1,994,300	2,603,500	3,666,300	5,849,700	14,043,800
Six-cent	149,100	270,200	659,500	1,110,700	2,189,500
Seven-cent	6,200	3,500	32,000	61,000	102,700
Ten-cent	20,800	35,000	78,700	168,600	303,100
Twelve-cent	26,800	26,000	35,800	79,700	168,200
Fifteen-cent	24,150	9,260	40,810	57,085	131,245
Twenty-four-cent	18,200	13,350	30,025	41,175	102,750
Thirty-cent	33,400	13,550	102,950	87,025	236,925
Ninety-cent	5,250	2,400	29,920	63,600	101,170
Two-dollar	500			500	1,000
Value	$98,637 50	$115,915 00	$239,188 50	$381,229 25	$834,970 25
Official stamped envelopes and wrappers.					
Two-cent	109,000	186,000	135,000	150,500	580,500
Three-cent	2,052,750	2,383,900	2,859,500	3,089,650	10,385,800
Six-cent	40,300	48,000	42,300	42,500	173,100
Twelve-cent			5,000		5,000
One-cent wrappers	150,000	600,000	500,000	450,300	1,700,300
Two-cent wrappers			200	100	300
Value	$67,877 70	$85,392 20	$97,532 14	$103,720 14	$354,522 18

RECAPITULATION.

Description.	Number.	Value.
Ordinary postage-stamps	682,342,470	$218,271,479 00
Newspaper and periodical postage-stamps	2,209,215	815,902 47
Postal cards	107,616,000	1,076,160 00
Ordinary stamped envelopes—plain	72,285,150	2,046,111 35
request	54,631,000	1,791,686 25
Total stamped envelopes	126,916,150	3,837,797 60
Newspaper-wrappers	22,850,250	285,679 74
Official postage-stamps	18,495,940	834,970 25
Official stamped envelopes and wrappers	12,845,000	354,522 18
Whole number and value of stamps, stamped envelopes, postal cards, and wrappers	973,275,025	25,477,311 24

EDWARD W. BARBER.
Third Assistant Postmaster-General.

Statement showing the classification and disposition of letters containing valuable inclosures for fiscal year ended June 30, 1875.

	Delivered.	Filed for reclamation.	Outstanding in hands of postmasters.	Total.
Money	25,031	10,506	9,872	45,409
Called "Minor":				
Checks, drafts, bills of exchange, letters of credit, certificates of stock	9,463	326	289	10,078
Money-orders, foreign and domestic	4,235	287	109	4,631
Notes and due-bills	1,881	135	97	2,113
Deeds and land-warrants	212	45	40	297
Mortgages and assignments, releases, satisfaction of, &c.	224	33	10	267
Leases and assignments of, &c	106	25	3	134
Powers of attorney	116	35	27	178
Passage and railroad tickets	133	40	80	253
Called "Sub-Minor":				
Receipts, bills of lading	15,189	1,946	.....	16,435
Legal documents	2,384	87	.....	2,471
Sealed foreign letters inclosed	2,188	194	.....	2,382
Sealed domestic letters inclosed	883	171	.....	1,054
Pension-vouchers, registered-letter receipts	465	21	.....	486
Locks of hair	873	1,329	.....	2,202
Paid notes, canceled checks, &c	630	36	.....	666
Photographs	29,507	9,613	.....	39,120
Postage-stamps	43,584	2,622	.....	46,206
Miscellaneous	6,682	617	.....	7,299
Called "Property":				
Jewelry and spectacles	921	441	2	1,364
Dry-goods and clothing	1,857	1,070	.....	2,927
Books, pictures, and music	2,869	1,739	4	4,612
Merchandise and samples	2,171	940	.....	3,111
Cutlery and instruments	144	83	.....	227
Manuscripts	227	202	.....	429
Miscellaneous	2,943	1,580	3	4,526
	154,918	33,423	10,536	198,877

EDWARD W. BARBER,
Third Assistant Postmaster-General.

Statement showing number, contents, and disposition of registered letters received during the fiscal year ended June 30, 1875.

	Delivered.	Filed.	Outstanding.	Total.
Money, including 85 letters from last fiscal year	813	68	56	937
Minor:				
Certificates of stock	2	.....	.....	2
Drafts	226	34	.....	260
Deeds	4	1	.....	5
Powers of attorney	5	2	.....	7
Passage-tickets	31	2	.....	33
Property:				
Jewelry and spectacles	40	9	2	51
Pictures, &c	49	17	4	70
Miscellaneous	15	3	3	21
Without valuable inclosure	629	183	.....	812
Foreign letters	*3,742	.....	.....	3,742
	5,536	321	65	5,942

* Returned unopened to country of origin.

EDWARD W. BARBER,
Third Assistant Postmaster-General.

Table of mail-service for the year ended June 30, 1875, as exhibited by the state of the arrangements at the close of the year.

[The entire service and pay on each route are set down to the State under which the route is numbered, though extending sometimes into other States, instead of being divided among the States in which the different portions lie.]

States and Territories.	Length of routes.	Annual transportation and cost.						Total annual transportation by celerity, certainty, and security.	Total annual transportation by steamboat.	Total annual transportation by railroad.	Total annual transportation.	Total annual cost.
		Celerity, certainty, and security.		By steamboat.		By railroad.						
	Miles.	*Miles.*	*Dollars.*	*Miles.*	*Dollars.*	*Miles.*	*Dollars.*	*Miles.*	*Miles.*	*Miles.*	*Miles.*	*Dollars.*
Maine	4,489	3,476	88,145			1,013	142,456	1,595,568		994,307	2,589,875	230,601
New Hampshire	1,836	1,104	32,546	60	1,850	672	66,911	505,076	18,200	741,677	1,264,953	101,307
Vermont	2,257	1,604	51,926			653	100,991	832,382		656,473	1,488,855	152,917
Massachusetts	3,044	1,152	58,152	30	2,500	1,862	313,953	803,810	18,720	2,845,621	3,668,151	374,605
Rhode Island	584	230	10,871	198	16,000	156	19,256	123,240	135,969	276,153	535,362	46,127
Connecticut	1,673	640	27,377			1,033	160,430	354,864		1,778,694	2,133,558	187,807
New York	12,049	6,281	265,015	213	8,535	5,555	1,280,218	3,154,768	127,175	8,771,640	12,053,583	1,553,768
New Jersey	2,267	898	34,287	68	3,503	1,301	152,129	463,502	69,472	1,972,961	2,505,935	189,919
Pennsylvania	14,469	9,795	293,475	52	3,570	4,322	463,253	4,005,082	27,170	6,079,714	10,111,946	760,298
Delaware	445	178	6,277			267	23,829	86,268		227,523	313,791	30,106
Maryland	3,105	1,814	70,088	190	6,150	1,101	250,368	1,030,190	74,256	1,798,682	2,901,137	326,606
West Virginia	5,382	4,741	60,902	250	11,925	391	55,071	880,154	109,044	330,791	1,319,989	127,898
Virginia	9,975	7,442	132,534	968	45,807	1,565	221,522	1,951,042	391,385	1,593,812	3,936,239	399,863
North Carolina	9,325	7,880	98,967	351	8,585	1,094	88,108	1,430,179	81,952	960,238	2,472,369	195,660
South Carolina	4,019	2,629	31,314	59	1,460	1,331	118,493	341,393	10,608	1,480,890	1,838,891	151,267
Georgia	6,879	4,331	66,243	224	6,019	2,324	200,904	691,678	45,656	2,214,826	2,952,160	273,166
Florida	5,585	2,453	39,277	2,669	47,275	463	31,113	371,256	386,620	316,960	1,074,136	117,065
Alabama	8,567	6,037	105,087	510	10,317	2,020	188,696	1,040,055	105,352	1,653,743	2,799,150	304,100
Mississippi	6,054	4,680	82,660	260	7,500	1,114	150,371	788,476	54,060	1,050,024	1,892,560	240,531
Louisiana	5,251	3,443	142,621	1,288	90,831	520	66,114	840,685	371,800	467,366	1,679,851	299,560
Texas	14,202	11,586	496,574	1,063	82,550	1,553	157,669	2,733,037	201,757	1,167,316	4,102,110	736,703
Arkansas	9,129	7,771	250,460	1,039	66,990	299	20,615	1,921,334	274,560	164,419	2,360,313	338,065
Missouri	13,848	9,658	121,661	450	41,000	3,740	535,296	2,536,654	140,400	3,575,705	6,252,759	757,887
Tennessee	6,233	4,846	72,438	159	6,943	1,228	158,668	1,007,804	53,456	1,337,074	2,398,334	238,084
Kentucky	7,708	5,363	88,234	1,077	49,800	1,308	135,550	1,337,232	443,248	1,185,187	2,965,667	273,584
Ohio	12,352	6,660	157,753	281	13,800	5,391	972,835	2,270,267	103,771	5,677,936	8,060,974	1,144,388
Indiana	7,750	4,735	87,300			3,015	333,775	1,194,040		3,294,109	4,488,149	411,075
Illinois	11,874	5,108	122,483			6,676	852,986	1,720,095		7,274,708	8,994,803	975,469
Michigan	9,353	4,813	130,810	1,155	17,700	3,385	262,040	1,504,600	215,873	3,776,804	5,497,277	416,559
Wisconsin	8,128	5,447	107,896	96	65	2,585	255,106	1,523,028	5,894	2,510,177	4,039,099	363,037
Iowa	10,902	6,837	133,465			3,365	315,573	1,980,505		2,412,364	4,392,869	449,038
Minnesota	7,249	5,051	100,366			2,198	149,643	1,193,816		1,022,804	2,216,620	250,000
Nebraska	7,612	5,189	93,104			1,423	259,133	1,240,045		997,205	2,246,250	443,297

Kansas	10,411	8,025	153,562			2,386	258,792	2,114,554		1,867,894	3,982,448	412,354
Nevada	2,343	2,291	145,306			52	2,588	706,952		32,292	820,244	147,884
California	10,189	7,369	400,082	1,012	35,400	1,809	271,999	2,702,168	247,800	1,437,877	4,387,845	707,491
Oregon	4,154	3,667	80,647	240	30,442	247	22,312	578,962	149,760	154,390	883,112	133,401
Washington Territory	3,020	1,068	37,978	1,846	67,613	106	6,336	208,988	104,944	65,894	379,896	111,927
Idaho Territory	1,188	1,188	78,759					355,742			355,742	78,759
Montana Territory	1,564	1,564	91,760					487,510			487,510	91,760
Dakota Territory	2,212	2,151	58,668			61	4,918	503,100		38,364	541,464	63,586
Wyoming Territory	580	580	21,731					108,680			108,680	21,731
Utah Territory	3,156	2,965	280,971			171	9,632	1,423,114		115,585	1,538,699	290,603
Colorado Territory	2,927	2,596	131,862			329	19,921	855,900		237,411	1,093,311	151,783
Indian Territory	442	442	14,909					95,264			95,264	14,909
New Mexico Territory	2,111	2,111	156,096					652,246			652,246	156,096
Arizona Territory	1,981	1,981	80,023					355,160			355,160	80,023
Total	277,873	192,002	5,452,721	15,788	684,130	70,083	9,216,518	54,708,454	3,958,852	75,154,910	133,822,216	15,353,369
Railway post-office clerks												1,122,640
Route-agents												943,800
Mail-route messengers												147,470
Local agents												96,580
Mail-messengers												621,311
Aggregate												18,285,170

JAS. N. TYNER,
Second Assistant Postmaster-General.

Railway post-office lines in the United States June 30, 1875, showing the increase in the service since June 30, 1874.

Terminal points.	Miles of route.	Miles of service.	Service each way.	Number of clerks.			Increase of miles of route from June 30, 1874, to June 30, 1875.	Increase of miles of service from June 30, 1874, to June 30, 1875.	Increase in number of clerks from June 30, 1874, to June 30, 1875.			Increase in lines of railway post-offices from June 30, 1874, to June 30, 1875.
				$1,400.	$1,200.	$1,000.			$1,400.	$1,200.	$1,000.	
Albany, N. Y., to Buffalo, N. Y	298	1,192	Twice daily	12	8	8			1			
Atlanta, Ga., to Augusta, Ga	171	342	Daily		4							
Baltimore, Md., to Canandaigua, N. Y	325	650	....do	4	3	3			(a)	(a)	3	
Baltimore, Md., to Grafton, W. Va	280	1,120	Twice daily	8	4	7			2	(b)	6	
Bangor, Me., to Vanceborough, Me	118	236	Daily			4						
Bloomington, Ill., to Mexico, Mo	200	400	....do	2	4							
Boston, Mass., to Portland, Me	116	232	....do	4	4	1						
Boston, Mass., to Saint Albans, Vt	290	580	....do	4	8					4		
Boston, Mass., to Albany, N. Y	200	800	Twice daily	10	8	8					4	
Boston, Mass., to Wellfleet, Mass	122	244	Daily		6							
Boston, Mass., to Fitchburgh, Mass	50	100	....do			1						
Boston, Mass., to Bangor, Me	249	996	Twice daily	11	13							
Bristol, Tenn., to Chattanooga, Tenn	242	484	Daily	4	6							
Buffalo, N. Y., to Toledo, Ohio	295	1,180	Twice daily	12	18	22			2	3	5	
Burlington, Iowa, to Council Bluffs, Iowa	291	582	Daily	4	4							
Cairo, Ill., to Centralia, Ill	112	224	....do	2	5					1		
Chattanooga, Tenn., to Atlanta, Ga	140	280	....do	3	3							
Chicago, Ill., to Fort Howard, Wis	242	484	....do	4	10					1		
Chicago, Ill., to Toledo, Ohio	243	972	Twice daily	9	16	11			2	3	(c)	
Chicago, Ill., to Quincy, Ill	263	526	Daily	6	11				1			
Chicago, Ill., to Freeport, Ill (d)	121	242	....do	3	4		(c)	(f)	(a)			
Chicago, Ill., to Cincinnati, Ohio	310	620	....do	4	7				3	(g)		
Chicago, Ill., to Iowa City, Iowa	237	474	....do	6	7					1		
Chicago, Ill., to Cedar Rapids, Iowa	219	438	....do	5	6				1			
Chicago, Ill., to Centralia, Ill	258	516	....do	5	10					2		
Chicago, Ill., to Saint Louis, Mo	280	560	....do	6	9				1	1		
Cleveland, Ohio, to Cincinnati, Ohio	244	488	....do	5	7	1					1	
Cleveland, Ohio, to Indianapolis, Ind	2224	565	... do	3	5				(g)	1		
Cincinnati, Ohio, to Louisville, Ky	126	252	....do		6		126	252		6		1
Cincinnati, Ohio, to Saint Louis, Mo	340	680	....do	4	10					(g)		
Clinton, Iowa, to Council Bluffs, Iowa	350	700	....do	5	4				1	(g)		
Davenport, Iowa, to Council Bluffs, Iowa	307	614	....do	4	6				1	(a)		
Detroit, Mich., to Chicago, Ill	284	568	....do	3	6					(g)		
Dubuque, Iowa, to Fort Dodge, Iowa	214	428	....do	3	3				(g)	1		
Dubuque, Iowa, to Centralia, Ill (h)	345	690	....do	6	5		70	140	1	(g)		
Grafton, W. Va., to Cincinnati, Ohio	309	1,236	Twice daily	4	8	1			3	(c)	1	
Grafton, W. Va., to Chicago, Ill (i)	539	1,118	Daily	5	10		396	659	5	2		
Indianapolis, Ind., to Saint Louis, Mo	261	522	....do	4	5				(g)	1		

Indianapolis, Ind., to Galesburgh, Ill.	264	528	....do	.....	8	.....	.....	.....	(g)	1	.....	.....
Kansas City, Mo., to Council Bluffs, Iowa	400	400	....do	4	3	.....	.....	.....	1	(g)	.....	.....
La Fayette, Ind., to Quincy, Ill	273	546	....do	5	15	.....	.....	.....	(g)	2	.....	.....
Louisville, Ky., to Nashville, Tenn	185	370	....do	5	5	.....	.....	.....	2	(g)	.....	.....
Lynchburgh, Va., to Bristol, Tenn	203	406	....do	4	5	.....	.....	.....	.....	(g)	.....	.....
Memphis, Tenn., to Chattanooga, Tenn	310	620	....do	6	6	.....	.....	.....	(g)	.....	.....	.....
Milwaukee, Wis., to Saint Paul, Minn	324	648	....do	8	9	.....	.....	.....	1	(a)	.....	.....
New Orleans, La., to Cairo, Ill (l)	548	1,096	....do	7	12	.....	66	132	4	(g)	.....	.....
New York, N. Y., to Boston, Mass	234	936	Twice daily	11	20	9	.....	.....	.....	1	.....	.....
New York, N. Y., to Washington, D. C	232	928	....do	12	9	*10	.....	.....	1	(g)	.....	.....
New York, N. Y., to Buffalo, N. Y	422	1,688	....do	15	14	18	.....	.....	1	1	4	.....
New York, N. Y., to Albany, N. Y	144	576	....do	5	5	5	.....	.....	1	1	.....	.....
Omaha, Nebr., to Ogden, Utah	1,032	2,064	Daily	14	21	.....	.....	.....	.....	1	.....	.....
Philadelphia, Pa., to Pittsburgh, Pa	358	716	....do	5	5	5	.....	.....	(g)	.....	(g)	.....
Peoria, Iowa, to Burlington, Iowa (m)	43	86	....do	1	1	.....	.....	.....	.....	.....	.....	.....
Quincy, Ill., to Kansas City, Mo	261	522	....do	4	6	.....	.....	.....	.....	1	.....	.....
Quincy, Ill., to Denison, Tex (n)	593	1,186	....do	9	9	.....	18	36	8	(o)	.....	.....
Rochester, N. Y., to Niagara Falls, N. Y	77	154	....do	.....	3	.....	.....	.....	.....	.....	.....	.....
San Francisco, Cal., to Ogden, Utah	881	1,762	....do	11	16	.....	.....	.....	.....	1	.....	.....
Saint Louis, Mo., to Atchison, Kan	330	660	....do	6	7	.....	.....	.....	1	(g)	.....	.....
Toledo, Ohio, to La Fayette, Ind	203	406	....do	4	12	.....	.....	.....	1	2	.....	.....
Washington, D. C., to Weldon, N. C	216	864	Twice daily	12	9	2	.....	.....	3	(o)	(g)	.....
Washington, D. C., to Lynchburgh, Va	178	356	Daily	4	4	1	.....	.....	1	(g)	1	.....
Hornellsville, N. Y., to Dunkirk, N. Y (p)	128	256	....do	.....	.....	.....	.....	.....	.....	.....	.....	.....

Recapitulation and comparative statement of the service of June 30, 1874, and June 30, 1875, showing the increase.

	June 30, 1874.		June 30, 1875.		Increase.	
Number of lines of railway post-offices		63		62		....
Aggregate number of miles of the above		16,414		16,932		518
Number of miles of actual service performed daily		39,109		40,109		910
Number of miles of actual service performed annually		14,307,635		14,639,785		332,150
Number of head clerks at $1,400 per annum	288		326		38	
Number of clerks at $1,200 per annum	465		457		(f)	
Number of assistant clerks at $1,000 per annum	97		117		20	
*An assistant clerk at $800 per annum	....		1		1	
Making total number of clerks		850		901		51
With annual compensation amounting to		$1,058,200		$1,122,640		$64,440

a Reduction of two. *b* Reduction of six. *c* Reduction of three. *d* Formerly Chicago to Dunleith, Ill., now curtailed to Freeport.
e Decreased 67. *f* Decreased 134. *g* Reduction of one. *h* Formerly Freeport to Centralia, Ill., now extended to Dubuque, Iowa.
i Reduction of eight. *k* Formerly Grafton, W. Va., to Columbus, Ohio, now curtailed and extended to Chicago, Ill.
l Formerly New Orleans, La., to Canton, Miss., now consolidated with Humboldt, Tenn., and Jackson, Miss., and extended to Cairo, Ill.
m Distance from Peoria to Galesburgh, Ill., included in Indianapolis, Ind., to Galesburgh, Ill. *n* Formerly Hannibal, Mo., to Denison, Tex., now extended to Quincy, Ill.
o Reduction of nine. *p* Number of clerks included in New York, to Buffalo, N. Y.

NOTE.—Since last report the following railway post-office lines have been discontinued, viz: Cairo, Ill., to Columbus, Ky., (by river,) discontinuance of service. Humboldt, Tenn., to Jackson, Miss., by extension of New Orleans, La., to Canton, Miss., to Cairo, Ill.

JAS. N. TYNER.
Second Assistant Postmaster-General.

Statements showing operations and results of foreign mail service for the fiscal year ended June 30, 1875.

The postages on United States and European mails were as follows:

The aggregate amount of letter postage (sea, inland, and foreign) on the mails exchanged—	
With the United Kingdom	$672,189 28
With Germany	371,239 74
With France	119,059 24
With Belgium	15,236 68
With the Netherlands	19,863 46
With Italy	47,436 49
With Switzerland	37,244 74
With Denmark	18,814 21
With Norway	31,636 97
With Sweden	50,608 88
Total postages	$1,383,329 69

Being a decrease of $55,470.96, compared with the amount reported for the previous year.

The postages on mails *sent* to Europe were as follows, viz:

To the United Kingdom	$347,925 90
To Germany	195,488 22
To France	53,842 47
To Belgium	6,176 75
To the Netherlands	9,800 18
To Italy	19,856 62
To Switzerland	17,663 09
To Denmark	9,003 65
To Norway	16,537 20
To Sweden	22,388 81
Total	$698,682 92

The postages on mails *received* from Europe were as follows, viz:

From the United Kingdom	$324,263 38
From Germany	175,751 52
From France	65,216 77
From Belgium	9,059 90
From the Netherlands	10,063 28
From Italy	27,579 87
From Switzerland	19,581 65
From Denmark	9,810 56
From Norway	15,099 77
From Sweden	28,220 07
Total	$684,646 77

Postages collected in the United States	$783,364 79
Postages collected in Europe	599,964 90
Excess of collections in the United States	$183,399 89

Number of letters (single rates) *sent* from the United States	9,746,435
Number of letters (single rates) *received* from Europe	9,206,102
Total	18,952,537

Being a decrease of 1,014,505, compared with the number reported for the previous year.

The excess of postages on mails *sent* from the United States to different countries of Europe, over that on mails *received* from the same countries, was as follows:

United Kingdom	$23,662 52
Germany	19,736 70
Norway	1,437 43
Total	$44,836 65

The excess of postages on mails *received* over those on mails *sent* was as follows:

France	$11,374 30
Belgium	2,883 12
The Netherlands	263 10
Italy	7,773 25
Switzerland	1,918 56
Denmark	806 91
Sweden	5,831 26
Total	$30,850 50

Payments during fiscal year ended June 30, 1875, to ocean-steamship lines transporting mails for the sea-postages as compensation for the service:

Cunard line		$52,317 05
Hamburg line		46,486 86
North German Lloyd line		39,993 00
White Star line		27,029 13
Williams & Guion line		20,833 87
Eagle line		18,402 65
Inman line		11,368 74
Canadian line		4,876 68
Anchor line		794 55
General Transatlantic Steamship Company		1,924 68
National line		154 88
Red Star line		42 51
Netherlands Steam Navigation Company		86 86
Snow & Burgess line		1,386 31
Thayer & Lincoln line		84 74
American Steamship Company		2,315 74
		$228,098 25
To Pacific Mail Steamship Company	$36,748 66	
To West Indies, Mexico, Brazil, &c	69,509 62	
To Nova Scotia	1,985 88	
To Canada	194 25	
		108,438 41
Total		$336,536 66

Weight of correspondence exchanged during the fiscal year ended June 30, 1875, between the United States and the countries of Europe with which the United States have concluded postal conventions.

Countries.	LETTER MAILS.						PRINTED MATTER AND SAMPLES.						Total weight of mails exchanged with European countries.	
	From the United States.		To the United States.		Total.		From the United States.		To the United States.		Total.			
	Grams.	Ounces.	Grams.	Ounces.	Grams.	Ounces.	Grams.	Ounces.	Grams.	Ounces.	Grams.	Ounces.	Grams.	Ounces.
United Kingdom		1,767,868½		1,646,056½		3,413,925		7,211,622½		10,875,022½		18,086,645		21,500,570½
Germany	27,134,848		23,698,862		50,833,710		74,111,371		33,813,424		107,924,795		158,758,505	
France	5,048,774		4,701,274		9,750,048		17,004,373		13,251,088		30,255,461		40,005,509	
Belgium	712,045		811,327		1,523,372		2,406,589		2,673,012		5,079,601		6,602,973	
The Netherlands	940,032		882,846		1,822,878		1,959,725		1,827,755		3,787,480		5,610,358	
Switzerland	1,282,486		1,553,255		2,835,741		6,920,422		4,310,644		11,231,066		14,066,807	
Italy	1,664,277		1,701,409		3,365,686		5,310,071		2,608,380		7,918,451		11,284,137	
Denmark	1,144,722		1,086,286		2,231,008		1,387,029		1,753,490		3,140,519		5,371,527	
Sweden	2,092,134		1,623,640		3,715,774		2,466,684		1,657,455		4,124,139		7,839,913	
Norway	1,456,486		1,005,320		2,461,806		1,712,287		591,720		2,304,007		4,765,813	
Total grams and equivalents in ounces	41,475,804	1,463,072	37,064,219	1,307,541	78,540,023	2,770,713	113,278,551	3,996,209	62,486,968	2,204,398	175,765,519	6,200,607	254,305,542	8,971,230
Total		3,231,040½		2,953,597½		6,184,638		11,207,831½		13,079,420½		24,287,252		30,471,800½
Decrease from 1874		234,406½		48,751		283,157		477,294½				209,803½		492,940½
Increase over 1874										267,491				
Decrease from 1874						Tons. 8						Tons. 6		

Total operations of the appointment-office for the year ended June 30, 1875.

States and Territories.	Post-offices.				Postmasters.			Total number of cases.
	Established.	Discontinued.	Names and sites changed.	Appointments on change of names and sites.	Resigned and commissions expired.	Removed.	Deceased.	
Alabama	89	43	10	4	165	31	8	339
Alaska		2						2
Arizona	10	2			12	3		27
Arkansas	116	53	9	3	139	42	6	358
California	72	24	12	6	138	13	8	267
Colorado	29	8	4	2	41	12	4	98
Connecticut	2	3	1		51	3	6	66
Dakota	30	7	3		44	11	3	98
Delaware	2	2			10	2	2	18
District of Columbia	1							1
Florida	40	15	8	2	48	12	1	124
Georgia	84	25	6	2	141	16	6	278
Idaho	6	7			16	2	1	32
Illinois	86	51	22	4	359	34	13	565
Indiana	47	31	7	3	354	37	21	497
Iowa	54	39	15	7	251	51	9	419
Kansas	133	50	24	16	250	39	8	504
Kentucky	90	59	10	4	207	30	19	415
Louisiana	43	23	5	2	83	48	8	209
Maine	24	12	2	1	98	9	12	157
Maryland	38	8	11	6	61	8	12	132
Massachusetts	6	13	3	1	86	2	10	120
Michigan	60	26	14	5	188	43	12	343
Minnesota	56	25	12	7	135	28	6	262
Mississippi	32	9	7	3	104	23	3	178
Missouri	138	62	16	7	304	52	23	505
Montana	13	7	1		18	6		45
Nebraska	82	25	27	17	99	23	3	259
Nevada	7	5			21	6	2	41
New Hampshire	11	4			43	2	8	68
New Jersey	28	9	2		86	12	6	143
New Mexico	15	4	1		16	3		39
New York	42	28	16	9	344	69	29	532
North Carolina	124	49	13	3	176	24	6	392
Ohio	55	31	23	7	308	45	20	489
Oregon	38	13	7	3	55	3	5	121
Pennsylvania	78	37	33	16	427	57	32	664
Rhode Island	1				20	2		23
South Carolina	58	29	5	3	100	14	3	208
Tennessee	100	43	11	5	161	36	9	360
Texas	92	49	20	7	199	37	12	409
Utah	11	6	3	1	22	5	1	48
Vermont	2		2	1	53	4	10	71
Virginia	130	65	32	13	241	35	19	535
Washington	20	4	5	2	31	1		61
West Virginia	66	34	9	3	112	13	2	239
Wisconsin	55	16	20	12	194	23	13	321
Wyoming	9	3			14	3		29
Total	2,313	1,060	431	187	6,017	974	380	11,175

Statement of the operations of the free-delivery

Post-offices.	Number of carriers in service June 30, 1875.	Delivered.				
		Mail.		Local.		Newspapers.
		Letters.	Postal cards.	Letters.	Postal cards.	
Albany, N. Y	25	1,900,708	199,076	240,992	142,410	964,852
Allegheny, Pa	11	951,995	64,011	86,170	27,067	536,936
Atlanta, Ga	6	654,194	86,157	29,580	29,149	241,989
Baltimore, Md	60	5,364,437	438,442	796,226	444,082	1,612,779
Bangor, Me	5	230,473	28,012	14,113	3,698	126,004
Boston, Mass	146	10,853,982	1,322,070	4,250,955	1,257,411	4,057,334
Bloomington, Ill	6	333,673	64,266	37,663	12,077	228,473
Brooklyn, N. Y	86	4,565,021	508,525	914,360	426,469	2,398,417
Buffalo, N. Y	34	3,305,971	245,779	334,333	186,609	1,486,117
Burlington, Iowa	6	406,150	42,913	27,424	17,489	331,954
Camden, N. J	6	357,618	44,831	42,178	17,568	194,430
Charleston, S. C	8	385,954	37,069	36,787	19,642	208,878
Chicago, Ill	144	15,654,751	1,552,405	2,777,682	1,018,206	4,122,063
Cincinnati, Ohio	63	5,319,691	535,469	919,993	411,785	1,360,514
Cleveland, Ohio	30	3,247,536	458,741	419,189	173,691	1,392,709
Columbus, Ohio	12	785,288	105,831	64,736	41,690	428,374
Covington, Ky	4	240,906	23,828	14,121	3,938	131,858
Davenport, Iowa	7	382,819	77,140	29,343	26,788	259,076
Dayton, Ohio	12	1,025,453	124,828	94,187	50,433	529,706
Detroit, Mich	31	4,206,955	471,308	431,518	113,675	1,742,046
Dubuque, Iowa	5	359,211	55,036	16,887	15,040	202,891
Des Moines, Iowa	6	424,101	67,638	36,375	18,490	273,389
Easton, Pa	6	560,014	73,601	38,773	14,034	257,689
Elizabeth, N. J	6	451,962	45,562	62,396	11,611	289,583
Elmira, N. Y	6	540,209	70,527	41,841	13,578	283,656
Erie, Pa	7	585,528	36,053	57,171	27,247	442,218
Evansville, Ind	7	485,968	68,542	92,004	18,146	270,981
Fort Wayne, Ind	7	937,336	75,509	108,965	62,859	696,936
Fall River, Mass	8	309,541	19,637	28,932	8,927	218,885
Grand Rapids, Mich	8	960,012	122,993	94,042	29,114	580,696
Harrisburgh, Pa	5	362,919	45,408	24,634	10,240	273,288
Hartford, Conn	11	833,252	94,558	147,044	55,394	545,543
Hoboken, N. J	4	213,336	27,700	16,492	14,417	68,197
Indianapolis, Ind	26	2,420,374	288,471	243,391	129,971	910,569
Jersey City, N. J	14	1,244,260	77,639	122,018	46,889	396,468
Kansas City, Mo	11	1,197,572	126,722	75,956	36,289	637,382
La Fayette, Ind	4	320,587	53,830	20,941	4,177	249,133
Lancaster, Pa	5	457,351	49,755	23,004	14,283	238,078
Lawrence, Mass	8	670,861	32,748	34,317	35,778	483,478
Leavenworth, Kans	5	322,607	50,861	23,400	15,644	184,377
Louisville, Ky	29	2,751,877	396,021	265,479	216,231	955,127
Lowell, Mass	10	610,770	54,900	50,287	28,959	275,378
Lynn, Mass	7	485,165	60,416	31,757	31,946	238,385
Manchester, N. H	7	515,482	69,889	27,823	24,577	408,065
Memphis, Tenn	13	1,337,721	82,441	84,543	46,970	354,625
Milwaukee, Wis	26	3,063,557	208,957	205,314	168,060	735,494
Minneapolis, Minn	8	671,966	50,435	44,629	27,069	508,398
Mobile, Ala	6	215,183	19,376	16,425	5,181	171,671
Nashville, Tenn	11	991,289	104,233	67,255	30,727	515,970
Newark, N. J	23	1,645,254	242,877	400,200	158,452	895,493
New Bedford, Mass	6	736,555	30,592	26,331	14,442	364,616
New Haven, Conn	14	764,369	73,361	112,461	39,545	496,405
New Orleans, La	47	2,617,851	284,534	458,590	208,817	1,211,389
New York, N. Y	429	34,140,620	3,283,271	20,435,013	5,162,722	7,651,516
Norfolk, Va	6	498,047	77,609	33,361	25,686	164,808
Omaha, Neb	6	521,209	77,713	55,307	19,603	294,175
Oswego, N. Y	6	389,756	50,111	26,469	6,718	189,365
Paterson, N. J	7	384,924	30,532	43,738	17,803	208,686
Peoria, Ill	8	481,647	79,054	29,774	17,503	234,138
Petersburgh, Va	5	332,339	46,242	20,975	11,254	138,682
Philadelphia, Pa	227	17,239,000	1,813,877	9,364,499	2,453,609	7,783,362
Pittsburgh, Pa	34	2,376,914	185,725	386,201	140,609	955,671
Portland, Me	10	587,731	81,584	45,712	35,830	478,140
Pottsville, Pa	4	250,570	31,595	23,119	4,636	204,041
Poughkeepsie, N. Y	6	441,306	35,542	36,198	22,625	258,376
Providence, R. I	21	972,639	91,593	232,024	48,400	461,249
Quincy, Ill	7	445,601	70,839	31,180	19,950	370,439
Reading, Pa	9	527,200	63,240	50,230	22,222	394,156
Richmond, Va	16	1,203,579	138,547	87,813	58,333	484,155
Rochester, N. Y	23	2,753,985	142,048	180,346	154,149	1,067,589
Saint Joseph, Mo	7	464,612	56,536	27,754	11,688	338,456
Saint Louis, Mo	100	9,431,997	802,998	1,050,067	698,904	2,695,226
Saint Paul, Minn	10	816,381	84,634	45,738	26,291	518,707

system for the year ending June 30, 1875.

Collected.			Pieces handled.		Cost of service, (including incidental expenses.)			Amount of local postage.
Letters.	Postal cards.	Newspapers.	Aggregate.	Per carrier.	Aggregate.	Per piece.	Per carrier.	
						Mills.		
1,854,471	186,516	245,593	5,734,618	229,385	$21,182 44	3.69	$847 30	$7,861 49
484,137	53,623	52,951	2,256,890	205,172	8,580 37	3.80	780 03	5,897 79
366,169	69,468	39,232	1,537,938	256,323	3,724 54	2.42	620 76	1,769 42
5,049,315	785,251	255,837	14,746,369	245,773	58,910 08	3.93	981 83	28,216 86
317,505	50,810	35,478	806,093	161,219	3,301 08	4.10	660 22	895 21
17,511,191	2,101,300	2,582,908	43,937,061	300,939	112,457 67	2.56	770 26	132,657 36
179,783	47,241	16,833	909,949	151,658	3,765 52	4.14	627 59	1,295 26
2,834,817	512,058	348,694	12,496,491	145,308	79,380 06	6.35	922 33	57,097 84
2,274,989	347,410	264,872	8,445,360	248,393	32,695 91	3.87	961 64	10,745 63
317,240	50,312	108,038	1,301,520	216,920	3,649 44	2.80	608 24	1,038 68
179,989	23,678	17,518	877,110	146,185	4,011 31	4.57	668 55	1,419 50
343,697	42,436	37,456	1,112,119	139,015	5,590 60	5.03	698 83	2,373 55
20,711,337	3,221,669	4,620,246	53,688,301	372,835	135,116 10	2.52	938 31	69,009 80
3,273,299	532,046	270,288	12,636,015	200,572	59,803 06	4.73	949 25	42,884 90
2,393,773	400,488	265,784	8,841,911	294,730	29,789 02	3.37	992 97	13,669 05
578,288	117,877	57,283	2,179,367	181,614	8,019 78	3.68	668 32	3,402 42
106,209	10,884	11,023	542,767	135,692	2,609 58	4.81	652 40	536 71
242,150	45,340	30,069	1,083,738	154,820	4,834 69	4.46	690 67	1,284 22
853,796	205,488	318,255	3,202,075	266,840	9,462 43	2.96	788 54	2,794 41
2,214,785	370,713	205,022	9,769,029	314,904	27,813 47	2.85	897 21	10,932 51
343,894	85,081	45,837	1,183,877	236,775	3,332 52	2.81	666 50	910 49
296,688	54,377	40,375	1,211,443	201,907	4,120 10	3.40	686 68	1,438 53
481,733	62,407	231,388	1,698,439	283,073	4,528 56	2.67	754 76	1,147 26
308,865	29,814	22,928	1,222,661	203,777	4,162 30	3.40	693 72	1,555 99
242,473	36,554	20,053	1,189,091	198,182	3,816 55	3.21	636 09	1,503 40
274,631	33,419	14,880	1,471,147	210,164	5,870 27	3.99	838 61	2,109 87
337,252	70,946	30,062	1,403,841	200,549	4,539 69	3.23	648 53	863 91
906,317	96,246	108,849	2,903,017	414,717	4,353 26	1.50	621 89	3,843 37
189,160	13,905	33,266	815,253	101,907	5,176 00	6.35	647 00	1,635 22
613,596	88,983	72,033	2,500,799	312,600	5,012 96	2.00	626 62	3,553 87
132,074	17,903	11,196	877,662	175,532	3,633 40	4.14	726 68	1,541 05
598,843	73,871	52,011	2,330,446	211,859	8,759 06	3.76	796 28	6,230 04
77,188	15,379	4,911	437,620	109,405	2,599 74	5.94	649 94	638 68
1,697,669	370,776	181,829	6,173,030	237,424	20,550 13	3.33	790 39	8,088 61
518,665	71,318	87,264	2,564,519	183,180	10,678 00	4.20	762 71	6,256 05
631,426	109,328	98,155	2,912,840	264,804	7,681 94	2.64	698 36	5,359 08
208,856	40,140	17,029	914,693	228,673	2,665 40	2.91	666 35	762 47
127,661	16,998	19,176	946,306	189,261	4,627 72	4.89	925 54	861 95
632,353	49,525	53,092	1,992,152	249,019	6,960 50	3.49	870 06	1,744 67
282,570	52,536	31,097	963,092	192,618	3,045 38	3.16	609 08	986 05
1,606,049	286,174	221,691	6,630,639	228,643	27,904 78	4.21	962 23	9,117 95
693,100	68,782	40,899	1,823,075	182,308	6,595 64	3.62	659 56	2,716 50
349,249	60,396	37,022	1,294,336	184,905	6,302 95	4.87	900 42	1,499 24
254,166	38,761	57,654	1,396,417	199,488	6,294 71	4.51	899 24	1,053 06
776,387	95,143	105,575	2,882,805	221,754	9,498 99	3.30	730 69	2,365 56
1,592,542	257,079	156,580	6,387,493	245,673	23,119 66	3.62	889 22	14,139 93
486,584	59,000	55,268	1,961,349	245,169	5,761 80	2.94	720 23	3,162 90
283,955	23,185	67,696	802,878	133,812	3,857 07	4.80	642 85	1,791 84
565,763	104,832	50,996	2,439,265	281,751	9,692 00	3.96	878 36	1,952 41
1,019,895	154,642	128,247	4,568,990	198,652	20,779 87	4.55	903 47	11,040 73
297,750	32,336	16,116	1,518,128	253,021	5,042 43	3.32	840 41	1,366 78
594,558	66,198	80,226	2,227,193	159,080	11,298 14	5.07	807 01	6,364 36
4,063,205	482,765	1,208,125	10,595,286	225,432	39,545 88	3.73	841 40	28,044 24
53,231,340	8,105,825	5,503,527	137,513,844	320,545	358,602 00	2.61	835 90	1,003,698 09
525,220	77,614	44,309	1,387,344	231,224	4,034 54	2.91	672 42	1,489 09
350,613	65,171	33,437	1,426,228	237,705	4,217 25	2.96	702 88	1,923 43
297,624	46,802	22,959	1,029,744	171,624	4,088 05	3.97	681 34	748 16
207,662	24,967	36,294	954,056	136,294	5,101 67	5.35	728 81	1,483 32
513,524	102,254	61,446	1,519,360	189,920	5,556 52	3.66	694 57	1,342 02
220,817	31,184	13,471	814,974	162,995	3,228 51	3.96	645 70	703 75
21,961,428	3,259,294	3,996,445	67,871,447	298,993	218,989 04	3.23	964 71	236,002 29
1,774,279	303,920	177,996	6,181,508	181,809	24,536 14	3.97	721 65	15,719 36
778,819	131,219	73,214	2,213,249	221,325	8,792 96	3.97	879 30	3,260 85
134,642	18,204	58,103	794,910	181,228	2,657 53	3.67	664 38	943 59
492,268	60,267	125,145	1,472,797	245,455	3,567 04	2.42	594 51	1,923 31
436,369	43,073	17,945	2,304,563	109,742	14,401 57	6.25	685 79	13,435 57
284,919	71,950	50,343	1,354,211	193,459	5,212 87	3.85	744 70	1,383 16
293,878	38,653	16,870	1,316,459	146,273	7,089 36	5.39	787 71	1,800 56
710,953	107,171	81,798	2,852,349	178,272	12,204 66	4.28	762 79	3,200 88
2,274,257	206,891	154,763	6,949,008	302,131	17,854 96	2.57	776 30	8,553 18
380,390	76,702	80,242	1,410,380	201,483	3,897 17	2.76	556 74	1,518 05
5,980,528	1,068,019	1,618,373	23,395,702	233,958	95,096 89	4.06	950 97	32,296 46
772,391	141,936	88,528	2,494,003	249,460	6,992 64	2.52	699 26	2,530 57

Statement of the operations of the free-delivery system

Post-offices.	Number of carriers in service June 30, 1875.	Delivered.				
		Mail.		Local.		Newspapers.
		Letters.	Postal cards.	Letters.	Postal cards.	
Salem, Mass	6	346,863	43,235	32,240	20,426	249,820
San Francisco, Cal	36	2,407,906	148,086	747,910	257,425	923,547
Savannah, Ga	6	417,831	50,189	55,261	15,586	160,730
Springfield, Mass	8	766,070	89,860	100,912	28,048	246,131
Springfield, Ill	4	308,090	45,504	21,569	14,466	228,700
Syracuse, N. Y	17	1,081,595	181,239	155,223	113,710	923,194
Toledo, Ohio	13	1,330,378	131,310	146,028	73,927	575,421
Trenton, N. J	6	389,249	30,176	31,335	16,063	231,160
Troy, N. Y	15	1,078,062	213,534	199,634	92,485	741,750
Utica, N. Y	13	1,056,538	148,164	92,296	42,023	472,394
Washington, D. C	37	2,308,138	188,913	321,090	194,226	1,114,222
Wheeling, W. Va	5	564,407	72,294	32,892	13,460	338,905
Wilmington, Del	9	634,815	69,045	75,534	31,259	292,606
Worcester, Mass	11	965,224	85,453	87,938	63,449	344,838
Total aggregates and averages	2,195	170,063,468	18,313,505	48,839,237	16,096,219	68,454,476
Salary of special agents of the Post-Office Department paid out of appropriation for letter-carriers						
Two large-sized letter-carrier satchels furnished post-office at Bridgeport, Conn						
Total						

for the year ending June 30, 1875—Continued.

Collected.			Pieces handled.		Cost of service, (including incidental expenses.)			Amount of local postage.
Letters.	Postal cards.	Newspapers.	Aggregate.	Per carrier.	Aggregate.	Per piece.	Per carrier.	
						Mills.		
279,352	39,250	75,603	1,086,798	181,133	$5,276 00	4.85	$879 33	$1,242 09
4,031,811	491,654	545,523	9,652,832	268,137	37,920 46	3.93	1,053 35	30,995 27
378,195	50,563	34,697	1,901,052	200,175	4,077 49	3.39	679 58	1,976 44
474,704	63,914	50,160	1,853,839	231,730	5,336 66	2.88	667 08	3,572 75
146,716	31,210	43,763	836,644	209,161	2,700 65	3.23	675 16	879 50
991,834	180,262	148,585	4,280,723	251,807	13,810 20	3.23	812 36	4,729 31
1,142,585	285,406	194,850	3,849,905	226,147	11,246 23	2.92	865 09	4,183 78
300,972	32,068	24,869	1,065,492	177,582	4,121 48	3.87	686 91	2,134 56
1,294,237	192,186	297,871	4,709,779	313,985	12,108 10	2.57	807 21	5,316 44
855,108	151,761	71,074	2,869,412	222,262	11,071 73	3.83	851 67	2,909 39
1,696,964	187,175	255,857	6,286,645	169,909	34,555 05	5.50	933 92	15,258 06
563,507	81,831	65,830	1,723,216	344,643	3,388 55	1.97	677 71	1,158 63
210,387	54,780	17,460	1,456,146	161,794	8,393 33	5.76	932 59	2,617 57
434,148	68,008	35,668	1,784,726	102,948	8,569 86	4.80	779 08	5,173 21
187,950,641	28,203,468	27,330,407	574,201,474	261,595	1,874,411 71	3.26	853 95	1,947,559 54
					5,022 48			
					7 80			
					1,880,041 99			

Table showing the increase and decrease of post-offices in the several States and Territories; also, the number of post-offices at which appointments are made by the President and by the Postmaster-General for the year ended June 30, 1875.

States and Territories.	Whole number of post-offices in the United States June 30, 1874.	Whole number of post-offices in the United States June 30, 1875.	Increase.	Decrease.	Number of postmasters appointed by the President June 30, 1874.	Number of postmasters appointed by the President June 30, 1875.	Increase.	Decrease.	Number of postmasters appointed by the Postmaster-General June 30, 1874.	Number of postmasters appointed by the Postmaster-General June 30, 1875.	Increase.	Decrease.
Alabama	746	785	39	....	14	17	3	....	732	768	36	....
Alaska	4	2	....	2	....	....	....	....	4	2	....	2
Arizona	34	42	8	....	2	3	1	....	32	39	7	....
Arkansas	602	663	61	....	7	9	2	....	595	654	59	....
California	683	731	48	....	24	32	8	....	659	699	40	....
Colorado	167	188	21	....	8	9	1	....	159	179	20	....
Connecticut	436	435	....	1	41	44	3	....	395	391	....	4
Dakota	112	133	21	....	2	2	....	....	110	131	21	....
Delaware	101	101	....	....	4	6	2	....	97	95	....	2
District of Columbia	5	6	1	....	2	2	....	....	3	4	1	....
Florida	181	206	25	....	6	6	....	....	175	200	25	....
Georgia	656	715	59	....	23	23	1	....	634	692	58	....
Idaho	66	68	2	....	2	2	....	....	64	66	2	....
Illinois	1,830	1,865	35	....	127	136	9	....	1,703	1,729	26	....
Indiana	1,478	1,494	16	....	57	67	10	....	1,421	1,427	6	....
Iowa	1,337	1,352	15	....	66	80	14	....	1,271	1,272	1	....
Kansas	981	1,064	83	....	34	38	4	....	947	1,026	79	....
Kentucky	1,031	1,062	31	....	24	28	4	....	1,007	1,034	27	....
Louisiana	318	338	20	....	7	6	....	1	311	332	21	....
Maine	857	869	12	....	23	28	5	....	834	841	7	....
Maryland	581	606	25	....	12	14	2	....	569	592	23	....
Massachusetts	722	715	....	7	102	100	....	2	620	615	....	5
Michigan	1,168	1,202	34	....	68	70	2	....	1,100	1,132	32	....
Minnesota	783	814	31	....	18	23	5	....	765	791	26	....
Mississippi	537	560	23	....	23	21	....	2	514	539	25	....
Missouri	1,449	1,525	76	....	46	46	....	....	1,403	1,479	76	....
Montana	94	100	6	....	4	4	....	....	90	96	6	....
Nebraska	501	559	58	....	10	14	4	....	491	545	54	....
Nevada	86	88	2	....	10	9	....	1	76	79	3	....
New Hampshire	427	434	7	....	24	23	....	1	403	411	8	....
New Jersey	635	654	19	....	46	46	....	....	589	608	19	....
New Mexico	55	66	11	....	2	3	1	....	53	63	10	....
New York	2,801	2,815	14	....	156	179	23	....	2,645	2,636	....	9
North Carolina	970	1,045	75	....	12	13	1	....	958	1,032	74	....
Ohio	2,140	2,164	24	....	100	113	13	....	2,040	2,051	11	....
Oregon	244	268	24	....	5	6	1	....	239	262	23	....
Pennsylvania	3,072	3,113	41	....	120	132	12	....	2,952	2,961	29	....
Rhode Island	103	104	1	....	10	11	1	....	93	93	....	....
South Carolina	431	460	29	....	13	13	....	....	418	447	29	....
Tennessee	989	1,046	57	....	17	19	2	....	972	1,027	55	....
Texas	818	861	43	....	30	30	....	....	788	831	43	....
Utah	166	171	5	....	3	3	....	....	163	168	5	....
Vermont	482	484	2	....	19	21	2	....	463	463	....	....
Virginia	1,339	1,404	65	....	22	24	2	....	1,317	1,380	63	....
Washington	138	155	17	....	3	3	....	....	135	152	17	....
West Virginia	714	746	32	....	10	10	....	....	704	736	32	....
Wisconsin	1,190	1,229	39	....	49	56	7	....	1,141	1,173	32	....
Wyoming	34	40	6	....	2	3	1	....	32	37	5	....
Total	34,294	35,547	1,263	10	1,408	1,547	146	7	32,886	34,000	1,136	23

REPORT OF THE AUDITOR OF THE TREASURY FOR THE POST-OFFICE DEPARTMENT.

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST-OFFICE DEPARTMENT,
October 22, 1875.

SIR: I have the honor to submit the following annual report of the receipts and expenditures of the Post-Office Department, together with the operations of this Office in connection therewith, for the fiscal year ending June 30, 1875:

Collection of post-office revenues.

The number of post-offices in operation during the year was 35,765, which are classified under the regulations adopted for the government of the Department, chapter 25, sections 352 to 368 inclusive, as follows:

The following-named offices are denominated depositories, and are required by the Postmaster-General to receive and retain, subject to the drafts of the Department, the funds of certain adjacent offices, as well as the revenues of their own:

List of offices designated as depositories, with names of postmasters.

Albany, N. Y., J. F. Smyth.
Atlanta, Ga., B. Conley.
Bangor, Me., A. B. Farnham.
Batavia, N. Y., Wm. Tyrrell.
Binghamton, N. Y., E. B. Stephens.
Buffalo, N. Y., N. B. Sherwin.
Cleveland, Ohio, John W. Allen.
Columbus, Ohio, Jas. M. Comley.
Concord, N. H., M. T. Willard.
Davenport, Iowa, Edward Russell.
Des Moines, Iowa, J. S. Clarkson.
Detroit, Mich., J. H. Kaple.
Dover, Del., F. A. Smith.
Dubuque, Iowa, G. L. Torbert.
Easton, Pa., J. K. Dawes.
Evansville, Ind., T. R. McFerson.
Fort Wayne, Ind., J. J. Kamm.
Geneva, N. Y., Chas. L. Hemiup.
Grand Rapids, Mich., A. B. Turner.
Harrisburgh, Pa., M. W. McAlarny.
Hartford, Conn., John H. Burnham.
Huntsville, Ala., J. D. Sibley.
Indianapolis, Ind., W. R. Holloway.
Kalamazoo, Mich., L. B. Kendell.
Keene, N. H., L. M. Henderson.
Knoxville, Tenn., Wm. Rule.
Lafayette, Ind., J. L. Miller.
Lancaster, N. H., John W. Spalding.
Leavenworth, Kans., D. R. Anthony.
Lexington, Ky., S. W. Price.
Lima, Ohio, C. Parmenter.
Louisville, Ky., L. M. Porter.
Lowell, Mass., E. T. Rowell.
Madison, Wis., E. W. Keyes.
Meadville, Pa., L. D. Williams.
Memphis, Tenn., J. Deloach.
Milwaukee, Wis., S. C. West.
Mobile, Ala., M. D. Wickersham.
Montpelier, Vt., J. W. Clark.
Nashville, Tenn., H. W. Hasslock.
Newark, N. J., Wm. Ward.
New Haven, Conn., N. D. Sperry.
Ogdensburgh, N. Y., R. G. Pettibone.
Olean, N. Y., J. G. Johnson.
Peoria, Ill., D. W. Magee.
Pittsburgh, Pa., E. C. Negley.
Plattsburgh, N. Y., H. S. Ransom.
Portland, Me., C. W. Goddard.
Portsmouth, Ohio, L. Adair.
Providence, R. I., C. R. Brayton.
Quincy, Ill., M. Piggott.
Raleigh, N. C., W. W. Holden.
Richmond, Va., E. L. Van Lew.
Ripon, Wis., H. S. Town.
Rochester, N. Y., D. T. Hunt.
Rutland, Vt., A. H. Tuttle.
Sandusky, Ohio, A. C. Van Tine.
Scranton, Pa., J. A. Scranton.
Springfield, Ill., J. L. Crane.
Springfield, Mass., H. C. Lee.
Steubenville, Ohio, J. M. Reede.
Saint Paul, Minn., David Day.
Savannah, Ga., J. G. Clark.
Syracuse, N. Y., D. H. Bruce.
Urbana, Ohio, D. C. Hitt.
Utica, N. Y., C. H. Hopkins.
Vincennes, Ind., W. N. Denney.
Wheeling, W. Va., C. J. Rawlings.
Williamsport, Pa., Robert Hawley.
Wooster, Ohio, A. S. McClure.
Worcester, Mass., Josiah Pickett.
Zanesville, Ohio, J. J. Douglas.

The following depositaries and assistant treasurers receive and retain, subject to the warrants of the Post-Office Department, the funds of such post-offices as are instructed to deposit in their hands:

Designated Depositaries.

S. J. Holley, Buffalo, N. Y.
E. W. Little, Santa Fé, N. Mex.
J. P. Luce, Louisville, Ky.
J. Cushman, Olympia, Wash.
Thos. Steel, Pittsburgh, Pa.
C. H. Lorde, Tucson, Ariz.

Assistant Treasurers.

Thomas Hillhouse, New York, N. Y.
George Eyster, Philadelphia, Pa.
Peter Negley, Baltimore, Md.
F. Haven, jr., Boston, Mass.
B. F. Flanders, New Orleans, La.
C. H. Baldwin, Charleston, S. C.
W. E. Davis, Cincinnati, Ohio.
J. D. Webster, Chicago, Ill.
A. G. Edwards, Saint Louis, Mo.
Wm. Sherman, San Francisco, Cal.

One hundred and twenty-eight post-offices are draft-offices, and during the year paid 18,256 drafts issued by the Postmaster-General, countersigned, entered, and sent out by the Auditor, for sums in the aggregate of		$2,041,940 82
Twenty-seven hundred and forty-eight are deposit-offices, a portion of which during the year deposited with the Treasurer and assistant treasurers of the United States the sum of		5,384,010 64
The remaining deposit-offices deposited with the depositaries named above the sum of $579,560.70, which is embraced in the $2,041,940.82, paid on the drafts of the Department by said depositaries and draft-offices		
Twenty-nine thousand one hundred and thirty-nine offices are collection-offices, and paid on collection orders issued to mail-contractors the sum of		4,397,144 84
Three thousand seven hundred and fifty offices are special and mail-messenger offices, and derive their mail supplies by the payment of the revenue of their offices therefor, amounting to		672,483 71
The amount paid into the Treasury by postmasters, for the use and purposes of the Post-Office Department, during the fiscal year was		12,495,580 01

Revenue account of the Post-Office Department.

The receipts of the Department for the fiscal year ended June 30, 1875, were		$26,791,360 59
The amount placed in the Treasury for the service of the Department for the fiscal year, being grants in aid of the revenue under the following acts of Congress, were:		
Under the second section of the act approved June 23, 1874, for mail-steamship service between San Francisco, Japan, and China	$500,000 00	
Under the second section of the act approved June 23, 1874, for mail-steamship service between the United States and Brazil	150,000 00	
Under the second section of the act approved June 23, 1874, for law-books for the use of the Post-Office Department	2,000 00	
Under the second section of the act approved March 3, 1875, to enable the Postmaster-General to adjust the pay of railroad companies according to the act of March 3, 1873	1,000,000 00	
Under the act approved January 22, 1875, (private,) to pay D. B. Allen & Co. for carrying the mails between New York and San Francisco, in 1864 and 1865	21,543 00	
Under the act approved March 3, 1875, (private,) to pay the Allegheny Valley Railroad Company for carrying the mails in 1868 and 1869	7,232 75	

Revenue account of the Post-Office Department—Continued.

Under the act approved March 3, 1875, (private,) to pay the Terre Haute and Indianapolis Railroad Company, successors of the Terre Haute and Richmond Railroad Company, being the amount found due said company by the Court of Claims	$7,543 75	
Under the third section of the act approved March 3, 1875, to enable the Postmaster-General to re-adjust salaries of certain fourth-class officers in accordance with section 84 of act of June 8, 1872	300,000 00	
Under the first section of the act approved March 3, 1870, for supplying deficiency in the revenue of the Post-Office Department for the fiscal year ended June 30, 1871	14,853 62	
Under the third section of the act approved March 3, 1871, for supplying deficiency in the revenue of the Post-Office Department for the fiscal year ended June 30, 1872	22,106 02	
Under the fourth section of the act approved June 1, 1872, for supplying deficiency in the revenue of the Post-Office Department for the fiscal year ended June 30, 1873	85,942 33	
Under the third section of the act approved March 3, 1873, for supplying deficiency in the revenue of the Post-Office Department for the fiscal year ended June 30, 1874	193,425 49	
Under the third section of the act approved June 23, 1874, for supplying deficiency in the revenue of the Post-Office Department for the fiscal year ended June 30, 1875	4,400,000 00	
		$6,704,646 96
Aggregate of revenue and grants		33,496,007 55
The expenditures of the Department for the fiscal year ended June 30, 1875, were		33,611,309 45
Excess of expenditures		115,301 90

The net revenue of the Department from postages, being the aggregate of balances due the United States by postmasters on the adjustment of their quarterly-accounts for the year, after deducting their compensation and the expenses of their offices, was:

For the quarter ended September 30, 1874	$3,499,095 24
For the quarter ended December 31, 1874	3,599,830 94
For the quarter ended March 31, 1875	3,895,637 91
For the quarter ended June 30, 1875	3,606,708 49
Total	14,601,272 58

The amount of book, newspaper, and pamphlet postage, paid in money, was:

For the quarter ended September 30, 1874	$293,472 61
For the quarter ended December 31, 1874	284,206 07
For the quarter ended March 31, 1875	1,504 85
For the quarter ended June 30, 1875	91 42
Total	579,364 95

The amount of letter-postage paid in money, was:

For the quarter ended September 30, 1874	$71 199 75
For the quarter ended December 31, 1874	64,521 38
For the quarter ended March 31, 1875	82,865 71
For the quarter ended June 30, 1875	68,382 20
Total	286,969 04

Revenue account of the Post-Office Department—Continued.

The amount of stamps, stamped envelopes, postal cards, and newspaper-wrappers sold, was:

For the quarter ended September 30, 1874	$5,431,944 82
For the quarter ended December 31, 1874	6,173,164 97
For the quarter ended March 31, 1875	6,381,028 42
For the quarter ended June 30, 1875	6,504,804 02
Total	24,490,942 23

The amount of official stamps furnished the different Departments, and included in the above amount of stamps sold, was:

To the Department of State	$12,520 00
To the Navy Department	16,620 00
To the War Department	73,265 43
To the Agricultural Department	40,390 00
To the Interior Department	84,870 00
To the Department of Justice	5,124 00
To the Treasury Department	190,750 00
To the Post-Office Department	587,506 00
Total	1,011,045 43

The number of quarterly-returns of postmasters received and audited, on which the sum of $14,601,272.58 was found due the United States, was:

For the quarter ended September 30, 1874	33,011
For the quarter ended December 31, 1874	34,242
For the quarter ended March 31, 1875	34,557
For the quarter ended June 30, 1875	34,873
Total	136,683

MAIL-TRANSPORTATION.

The amount charged to transportation accrued and placed to the credit of mail-contractors and others, for mail-transportation during the year, was:

For the regular service of mail-routes	$15,145,497 96
For the supply of special and mail-messenger offices	667,745 09
For the salaries of postal-railway clerks, route and other agents	2,279,970 73
For the salaries and per diem of the assistant superintendents of the postal-railway service	53,768 82
	18,146,982 60

FOREIGN-MAIL TRANSPORTATION.

San Francisco, Japan, and China	$500,000 00
San Francisco, Japan, and China, (extra service)	8,099 84
United States and Brazil	150,000 00
New York and Rio Janeiro	347 20
New York, Great Britain, and Ireland	131,334 54
Boston and Great Britain	3,849 58
Chicago, Detroit, Portland, and Great Britain	4,876 67
Philadelphia and Queenstown	1,669 82
New York, England, France, and Germany	46,397 70
New York, England, and Bremen	38,406 50
Boston, Prince Edward Island, and Nova Scotia	568 06
Baltimore and Bremen	28 00
Baltimore, Havana, and New Orleans	594 30
New Orleans, Key West, and Havana	2,654 96
New York and Rotterdam	3 73
New York and West Indies	9,688 21

Mail-Transportation—Continued.

New York, Venezuela, and United States of Colombia	$1,412 60	
New York, Havana, New Orleans, and Vera Cruz	52,172 21	
New York, and San Francisco, and Ecuador, via Panama	49,303 59	
New Orleans, Havana, and France	221 13	
Cleveland and Canada	194 25	
New York, Philadelphia, and Belgium	42 51	
Portland and Nova Scotia	1,408 30	
Philadelphia, Havana, and New Orleans	2,750 16	
Expenses of Government mail-agent at Havana	806 00	
Expenses of Government mail-agent at Panama	1,473 55	
Expenses of Government mail-agent at Aspinwall	940 00	
Expenses of Government mail-agent at Hakodadi, Japan	374 52	
		$1,009,611 93
		19,156,594 53

The amount credited to transportation accrued and charged to contractors, was:

For fines imposed	$3,495 06	
For deductions	149,466 36	
		152,961,42
Net amount to the credit of mail-contractors and others		19,003,633 11

The amount actually paid during the year was $18,777,201 20

Statement of collecting-division.

This division has had charge of 24,400 accounts of postmasters who became late during the period from July 1, 1873, to June 30, 1875.

Amounts collected from postmasters becoming late prior to July 1, 1874:

Collected by draft	$142,139 19
Collected by suit	16,801 37
Credited on vouchers	107,944 10
Charged to suspense	41 63
Charged to bad debts	1,434 72
Charged to compromise debts	2,669 11
Total	271,030 12
Amount collected by draft from contractors	$9,424 00

Number of changes of postmasters reported by appointment-office during the fiscal year, was 15,262; and the balances due the United States upon the accounts of said late postmasters, amount to $304,891 84

Of which there has been—

Collected by draft	$95,176 22	
Credited on vouchers	142 54	
Charged to suspense	243 68	
Charged to bad debts	76 20	
		95,638 64
Total remaining due		209,253 20

Of which there is—

In suit	$1,069 52	
Not in suit	208,183 68	
		209,253 20

Amount reported due late postmasters, late prior to July 1, 1874:

As per last report	$64,785 35
Increase during the fiscal year	15,794 03
Total	80,579 32

Statement of collecting-division—Continued.

Amount paid thereon	$48,880 31	
Amount closed by suspense	9,452 23	
Amount remaining due	22,246 84	
		$80,579 38
Amount due postmasters late during the fiscal year		127,866 53
Amount paid thereon	$64,491 70	
Amount closed by suspense	295 82	
Amount remaining due	63,079 01	
		127,866 53
Accounts of late postmasters for which suit has been brought during the fiscal year		49,814 17
Amount collected by suit during the fiscal year		29,822 79

The subjoined tables, numbered from 1 to 51 inclusive, exhibit in detail the transactions of the Department for the fiscal year.

I have the honor to be, very respectfully,

J. M. McGREW,
Auditor.

HON. MARSHALL JEWELL,
Postmaster-General.

Statement exhibiting quarterly the receipts of the Post-Office Department, under their several heads, during the fiscal year ended June 30, 1875.

Receipts.	Quarter ended September 30, 1874.	Quarter ended December 31, 1874.	Quarter ended March 31, 1875.	Quarter ended June 30, 1875.	Aggregate.
Letter-postage	$71,199 75	$64,521 38	$82,865 71	$82,382 20	$300,969 04
Book, newspaper, and pamphlet postage	293,472 61	284,296 07	1,504 85	91 42	579,364 95
Box-rents and branch offices	316,173 81	313,530 23	320,201 35	320,048 84	1,270,354 23
Fines and penalties	439 54	1,457 25	9,190 38	3,199 12	14,286 29
Postage-stamps, stamped envelopes, and postal cards	5,431,944 82	6,173,164 97	6,381,028 42	6,504,804 02	24,490,942 23
Dead-letters	1,430 00	900 00	6,850 00		9,180 00
Revenue from money-order business				120,142 09	120,142 09
Miscellaneous	3,386 02	3,248 23	3,980 60	9,306 91	19,921 76
Total	6,118,046 55	6,841,118 13	6,805,621 31	7,026,574 60	26,791,360 59

J. M. McGREW, *Auditor.*

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST-OFFICE DEPARTMENT, *October* 22, 1875.

Statement exhibiting quarterly the expenditures of the Post-Office Department, under their several heads, for the fiscal year ended June 30, 1875.

Expenditures.	Quarter ended September 30, 1874.	Quarter ended December 31, 1874.	Quarter ended March 31, 1875.	Quarter ended June 30, 1875.	Aggregate.
Compensation to postmasters	$1,692,439 33	$1,806,752 89	$1,786,944 54	$1,763,799 01	$7,049,935 77
Additional compensation to postmasters for fiscal year ended June 30, 1874, act March 3, 1875	.....	.....	205,688 44	2,498 89	208,187 33
Ship, steamboat, and way letters	1,175 18	908 15	668 15	1,001 70	3,753 18
Transportation of the mails	4,417,807 21	4,949,643 71	4,743,587 26	4,666,163 02	18,777,201 20
Wrapping-paper	1,460 00	1,908 22	5,238 88	2,960 00	11,567 10
Office-furniture	2,041 81	4,345 88	4,464 24	6,012 38	16,864 31
Advertising	62,122 83	88,486 16	13,008 44	4,763 77	168,381 20
Mail-bags and catchers	60,451 06	57,931 18	45,317 84	23,448 00	187,148 08
Mail locks and keys	10,282 03	9,247 65	2,759 40	9,522 34	31,811 42
Mail depredations and special agents	30,282 00	35,673 78	38,139 91	37,599 08	150,693 77
Compensation of clerks for offices	839,077 37	843,827 38	842,513 27	889,393 24	3,414,811 26
Postage-stamps, stamped envelopes, and postal cards	134,725 00	234,480 33	161,240 25	173,741 26	724,186 84
Compensation of letter-carriers	435,210 61	469,787 74	473,928 87	480,282 89	1,879,210 11
Dead-letters	1,760 00	.....	.....	552 42	2,312 42
Postmarking and canceling stamps	1,044 86	1,051 31	2,315 98	1,531 08	5,943 23
Twine	9,964 50	12,043 07	12,354 50	9,449 50	43,811 57
Letter-balances	1,244 00	16,303 15	915 65	1,686 44	19,449 24
Rent, light, and fuel	84,487 54	103,339 64	93,285 17	108,526 50	389,638 85
Balances due foreign countries	58,003 48	20,271 30	36,498 29	66,959 45	181,738 52
Miscellaneous	55,245 90	84,682 84	44,360 55	30,953 15	215,242 44
Miscellaneous stationery	7,855 33	7,226 03	10,729 08	13,624 17	39,497 61
Total	7,955,680 04	8,747,910 41	8,613,250 71	8,294,468 29	33,611,309 45

J. M. McGREW, *Auditor.*

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST-OFFICE DEPARTMENT, *October* 22, 1875.

Statement of the postal receipts and expenditures of

States and Territories.	Letter-postage.	Book, newspaper, and pamphlet postage.	Waste-paper and twine.	Box-rents and branch offices.	Postage-stamps, stamped envelopes, and postal cards.	Total receipts.
Maine	$3,560 86	$12,425 19	$137 00	$33,149 42	$384,636 19	$423,908 66
New Hampshire	1,042 54	8,799 84	173 78	13,433 31	244,872 18	268,321 65
Vermont	819 66	7,934 39	94 65	9,869 13	228,405 18	247,123 01
Massachusetts	15,691 00	31,749 28	507 36	104,746 61	1,781,269 33	1,933,956 58
Rhode Island	1,737 33	3,604 48	141 93	20,028 51	190,285 52	215,797 77
Connecticut	3,460 20	12,887 36	265 85	36,441 80	530,188 50	583,243 71
New York	105,037 74	81,543 23	2,368 30	185,019 87	4,946,339 72	5,320,308 86
New Jersey	4,965 54	12,777 53	186 35	23,056 44	518,251 59	561,237 45
Pennsylvania	22 602 40	47,065 85	1,294 01	85,538 54	2,356,114 74	2,512,635 54
Delaware	402 65	1,703 25	16 71	1,352 76	62,296 65	65,772 02
Maryland	8,607 25	9,083 82	111 48	10,044 81	462,736 91	491,584 27
Virginia	2,059 96	10,506 38	89 60	11,734 41	371,859 77	396,550 14
West Virginia	739 61	4,487 99	55 45	3,466 26	125,289 59	134,038 84
North Carolina	703 83	6,630 10	71 13	7,658 44	173,983 40	189,046 90
South Carolina	896 34	4,922 70	41 36	7,162 90	148,709 70	161,733 00
Georgia	1,649 15	9,158 76	185 37	18,973 84	287,669 46	317,636 58
Florida	1,970 80	1,264 40	27 14	4,596 07	57,842 02	65,701 03
Ohio	8,821 78	42,861 78	1,151 55	78,140 38	1,609,292 32	1,740,267 81
Michigan	21,727 19	26,613 96	767 74	60,702 34	758,836 82	868,648 05
Indiana	2,859 04	24,719 94	482 95	43,103 73	676,927 16	748,092 82
Illinois	16,487 01	43,753 04	2,155 96	97,253 56	1,932,279 11	2,091,928 68
Wisconsin	5,769 06	20,284 50	374 92	41,542,90	548,575 12	616,546 50
Iowa	4,967 66	24,162 49	389 10	52,035 21	674,782 22	755,567 68
Missouri	6,282 03	23,656 57	711 99	30,666 94	860,899 31	922,216 84
Kentucky	1,823 17	10,363 75	232 31	15,314 36	377,183 40	404,916 99
Tennessee	1,456 00	9,021 37	253 04	10,367 97	277,007 09	298,105 47
Alabama	1,168 57	5,500 58	49 48	13,690 76	171,241 89	191,651 28
Mississippi	621 21	5,302 34	52 29	13,904 45	147,095 79	167,266 08
Arkansas	423 42	3,141 51	60 04	7,742 44	97,282 67	108,650 08
Louisiana	6,446 26	5,819 67	104 04	22,064 85	234,769 96	269,204 78
Texas	3,501 38	10,462 55	209 83	34,969 74	340,388 37	389,531 87
California	12,303 82	15,746 11	269 07	53,915 01	664,259 13	746,533 14
Oregon	149 73	2,899 19	47 32	8,538 80	64,787 13	76,422 17
Minnesota	5,481 67	10,737 81	251 92	22,116 74	287,302 96	325,891 10
Kansas	1,317 20	9,232 73	170 75	24,742 37	274,553 97	310,017 02
Nebraska	927 18	5,001 79	406 55	10,294 03	144,545 19	161,104 74
Nevada	581 50	2,231 01	57 63	13,238 25	57,318 75	73,427 34
Colorado	528 81	2,889 72	81 75	19,196 74	97,815 77	120,512 79
Utah	380 41	1,895 70	24 18	5,534 90	51,940 16	59,775 35
New Mexico	62 02	299 55	6 02	1,304 86	16,187 53	17,860 58
Washington	94 93	1,012 11	13 30	1,898 34	17,866 02	20,884 70
Dakota	248 74	710 99	16 27	1,393 83	23,087 10	25,456 93
Arizona	34 21	296 13	4 85	720 70	8,784 27	9,840 16
Idaho	81 99	578 28	18 25	2,160 40	12,693 76	15,462 68
Wyoming	90 05	628 95	14 80	2,391 70	24,352 73	27,478 23
Montana	99 35	973 76	16 52	4,885 75	21,585 07	27,560 45
Alaska	2 69	3 10	.....	18 00	149 19	172 98
District of Columbia	3,421 82	2,500 12	166 08	7,468 24	166,456 47	180,012 73
	284,607 98	580,248 70	14,319 17	1,269,521 35	23,510,887 48	25,659,644 74
Deduct miscellaneous items	.....	883 81	.....	.....	.....	.....
Add miscellaneous items	2,301 06	.....	.....	1,032 88	980,054 75	982,504 88
	286,969 04	579,364 95	14,319 17	1,270,554 23	24,490,942 23	26,642,149 62

NOTE.—The following items of expenditure and revenue, being of a general nature, are not embraced

Amount paid for foreign mails and expenses of Government agent	$1,009,611 93
Balances due foreign countries	181,738 22
Ship, steamboat, and way letters	3,753 18
Wrapping-paper	11,567 10
Twine	43,811 57
Office-furniture	643 25
Advertising	133,395 75
Mail-bags and catchers	102,724 56
Salaries and per diem of assistant superintendents of postal-railway service	53,768 62
Mail locks and keys	31,811 62
Postmarking and canceling stamps	5,943 53
Mail depredations and special agents	150,680 77
Letter-balances	19,449 24
Expenses of postage-stamps, stamped envelopes, and postal cards	794,186 84
Dead-letters	2,313 62
Miscellaneous payments	120,138 56
Additional compensation to postmasters for year ended June 30, 1874. Act of Mar. 3, 1875.	298,187 33
Excess of expenditures brought down	4,221,690 25
	7,195,391 74

OFFICE OF THE AUDITOR OF THE TREASURY
FOR THE POST-OFFICE DEPARTMENT, *October* 22, 1875.

the United States for the fiscal year ended June 30, 1875.

Compensation of postmasters.	Clerks for offices, rent, light, and fuel, and incidental expenses of post-offices.	Compensation of letter-carriers.	Compensation of route-agents, postal-railway clerks, mail-messengers, and supply of special offices.	Transportation by States.	Total expenses.	Excess of expenditures over receipts.	Excess of receipts over expenditures.
$170,160 33	$48,104 06	$12,094 04	$43,163 03	$922,876 03	$556,417 49	$132,508 83	.....
118,749 39	17,433 72	6,294 71	21,076 70	128,845 23	293,299 75	24,978 10	.....
119,025 40	15,861 22	.....	21,614 48	185,831 19	342,332 29	95,209 28	.....
372,543 34	323,817 93	161,717 71	172,141 44	364,207 72	1,394,428 14	.....	$539,528 44
43,221 65	24,101 76	14,401 57	7,184 75	52,684 17	141,593 90	.....	74,203 87
180,123 39	68,214 71	20,065 00	51,385 60	236,279 67	556,061 37	.....	97,182 34
761,708 75	1,115,806 73	558,117 04	389,585 90	1,063,066 08	4,488,286 50	.....	832,022 36
190,263 49	42,402 87	51,454 37	29,090 84	181,698 18	494,837 75	.....	66,399 70
594,721 57	342,092 56	280,519 39	186,557 90	730,223 30	2,134,107 72	.....	376,527 82
21,770 85	6,038 40	8,393 33	8,551 18	31,476 82	76,230 58	10,458 56	.....
97,138 38	83,907 86	58,910 08	43,487 84	314,932 69	588,370 85	96,786 58	.....
146,900 30	49,936 29	19,467 71	42,699 16	393,613 88	652,569 34	256,019 90	.....
60,228 14	14,703 47	3,388 55	18,209 71	130,597 63	227,127 50	93,088 66	.....
88,397 67	17,384 64	.....	39,193 39	201,142 64	346,118 34	157,071 44	.....
57,161 26	12,469 94	5,590 60	17,208 06	180,925 00	273,354 86	111,021 77	.....
109,217 91	45,551 15	7,802 03	51,845 41	238,696 34	453,112 84	135,476 26	.....
30,012 21	5,968 92	.....	11,626 18	217,562 00	265,169 31	199,466 28	.....
483,231 72	200,362 21	118,320 52	240,455 78	1,074,927 84	2,117,298 07	377,030 26	.....
353,147 80	94,292 06	32,886 43	72,129 00	436,588 23	988,963 52	190,335 47	.....
287,264 73	112,557 26	32,108 48	97,367 90	481,848 00	1,011,146 37	263,053 55	.....
554,046 64	457,221 15	152,351 66	381,364 85	1,100,487 20	2,645,471 50	553,542 82	.....
238,952 09	62,898 24	23,119 66	78,634 72	364,138 62	767,743 33	151,196 83	.....
330,776 86	62,627 59	15,036 75	132,369 55	457,510 67	999,221 42	243,653 74	.....
233,698 50	158,530 99	106,676 00	135,597 97	811,955 93	1,446,459 39	524,242 55	.....
122,403 02	49,913 26	30,514 36	49,820 66	269,745 51	529,396 81	124,479 82	.....
100,885 35	49,182 40	19,160 99	87,597 41	265,095 13	521,931 28	223,815 81	.....
81,299 93	26,208 54	3,857 07	34,531 88	302,157 30	448,054 72	256,403 44	.....
88,978 76	12,821 34	.....	14,726 06	151,255 06	267,781 24	100,515 16	.....
55,852 60	13,003 83	.....	14,307 60	351,251 22	434,415 25	325,765 17	.....
43,125 43	67,265 80	38,545 88	18,536 54	269,135 75	437,609 40	168,384 62	.....
137,869 71	48,994 46	.....	36,210 62	774,489 83	1,017,564 62	628,032 75	.....
153,978 38	106,729 72	37,920 46	92,673 64	433,295 52	794,596 72	48,043 58	.....
33,567 92	10,600 08	.....	7,529 00	121,682 54	173,379 54	96,957 37	.....
131,273 50	35,495 33	12,054 44	58,582 51	226,768 63	464,174 41	138,283 31	.....
158,953 27	33,392 27	3,045 38	72,289 55	250,269 56	517,950 03	207,933 01	.....
71,982 76	18,715 60	4,217 25	68,581 87	431,591 16	595,088 64	433,963 90	.....
35,209 46	11,790 44	.....	2,326 84	128,385 79	177,712 53	104,285 19	.....
46,715 42	22,258 43	.....	12,317 13	136,501 42	217,792 40	97,279 61	.....
27,246 11	9,827 69	.....	4,982 85	258,725 61	300,782 26	241,006 91	.....
11,368 25	1,306 45	.....	.....	137,386 48	150,061 18	132,200 60	.....
12,510 96	947 50	.....	1,031 73	115,973 06	130,463 25	109,578 55	.....
14,634 81	1,248 10	.....	413 83	54,140 58	70,437 32	44,980 39	.....
5,646 09	200 00	.....	1 66	69,347 81	75,195 56	65,355 40	.....
9,593 36	1,120 00	.....	450 00	69,475 78	80,239 14	64,776 46	.....
11,746 28	3,685 00	.....	188 00	20,600 00	36,199 28	8,720 43	.....
16,644 78	5,580 55	.....	155 33	67,764 59	90,145 25	62,584 80	.....
108 57	.....	.....	.....	.....	108 57	.....	64 41
7,201 43	117,924 13	34,555 05	107,490 77	.....	267,171 38	87,158 65	.....
7,038,272 52	4,030,500 65	1,874,419 51	2,947,715 82	15,167,074 41	31,057,982 91	7,310,267 11	1,917,928 94
.....	.....	.....	.....	174,537 87	133,973 04	133,973 04	.....
11,663 25	24,110 98	4,790 60	.....	.....	.....	.....	982,504 88
7,049,935 77	4,054,611 63	1,879,210 11	2,947,715 82	14,992,536 54	30,924,009 87	7,182,294 07	2,900,433 82

in the above statement, viz:

Receipts on account of dead-letters	$9,180 00
Receipts on account of fines and penalties	14,286 29
Receipts on account of miscellaneous	5,602 59
Receipts on account of money-order business	120,142 00
Excess of transportation accrued	236,481 91
Total excess of expenditures over receipts	6,819,948 86

7,195,591 71

J. M. McGREW, *Auditor.*

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Table exhibiting the receipts and expenditures of the Post-Office Department from July 1, 1836, to June 30, 1875.

Year	Receipts.			Expenditures.
	Revenue.	Treasury grants.	Total.	
1837	$4,945,668 21		$4,945,668 21	$3,398,319 03
1838	4,238,733 46		4,238,733 46	4,428,682 21
1839	4,484,656 70		4,484,656 70	4,636,526 31
1840	4,543,521 92		4,543,521 92	4,718,235 64
1841	4,407,726 27	$482,657 00	4,890,383 27	4,498,527 61
1842	4,546,849 65		4,546,849 65	5,674,751 80
1843	4,296,225 43		4,296,225 43	4,374,753 71
1844	4,237,287 83		4,237,287 83	4,396,512 70
1845	4,289,841 80		4,289,841 80	4,380,731 98
1846	3,487,199 35	750,000 00	4,237,199 35	4,076,026 91
1847	3,880,309 23	12,500 00	3,892,809 23	3,979,543 10
1848	4,555,211 10	125,000.00	4,680,211 10	4,396,660 27
1849	4,705,176 28		4,705,176 28	4,472,049 13
1850	5,499,984 86		5,499,984 86	5,212,953 43
1851	6,410,604 33		6,410,604 33	6,278,401 68
1852	5,184,586 84	1,741,444 44	6,925,971 28	7,108,459 04
1853	5,240,734 70	2,255,000 00	7,495,724 70	7,982,756 59
1854	6,255,586 22	2,736,748 96	8,992,335 18	8,577,424 12
1855	6,642,136 13	3,114,542 26	9,756,678 39	9,966,342 29
1856	6,920,821 66	3,748,881 56	10,669,703 22	10,465,288 36
1857	7,353,951 76	4,528,004 67	11,881,956 43	11,506,057 93
1858	7,486,792 86	4,679,270 71	12,166,063 57	12,798,470 01
1859	7,968,484 07	3,915,946 49	11,884,430 56	11,452,983 63
1860	8,518,067 40	11,154,167 54	19,672,234 94	19,170,699 89
1861	8,349,296 40	4,639,806 53	12,989,102 93	13,606,739 11
1862	8,299,890 90	2,598,953 71	10,898,774 61	11,185,364 13
1863	11,163,789 59	1,007,848 72	12,171,638 31	11,314,296 84
1864	12,438,253 78	749,980 00	13,188,233 78	12,644,788 20
1865	14,556,158 70	3,968 46	14,560,127 16	13,694,728 28
1866	14,386,986 21		14,386,986 21	15,332,079 30
1867	15,227,096 87	3,001,066 67	18,228,693 54	19,235,463 46
1868	16,292,600 80	5,096,525 00	21,989,125 80	23,730,598 65
1869	18,344,510 72	5,707,115 30	24,051,626 02	23,698,131 50
1870	19,772,220 65	4,022,140 85	23,794,361 50	23,998,237 63
1871	20,037,045 42	4,126,200 00	24,163,245 42	24,390,104 08
1872	21,915,426 37	4,993,750 00	26,909,176 37	26,636,198 31
1873	22,996,741 57	5,990,475 00	28,987,216 57	29,694,945 67
1874	26,471,071 89	5,922,433 55	32,393,505 37	32,126,414 58
1875	26,791,380 59	6,704,646 96	33,496,027 55	33,611,369 45
Total	387,152,398 45	95,399,674 38	482,552,072 83	480,706,989 67

J. M. McGREW, *Auditor.*

OFFICE OF THE AUDITOR OF THE TREASURY FOR THE POST-OFFICE DEPARTMENT, *October* 22, 1875.

Statement showing the transactions of the Money-Order Office of the United States during the fiscal year ended June 30, 1875.

States and Territories.	Number of orders issued.	Balance from last year.	Amount of orders issued.	Revenue.		Drafts and deposits received.	Balance due postmasters.	Transferred from—			
				Total fees received.	Premiums.			Postage-fund.	Swiss fund.	British fund.	German fund.
Alabama	68,307	$17,309 27	$1,236,560 70	$7,586 15	$148 80	$717,736 67	$63 47	$634 93	$72 18	$1,964 52	$5,542 98
Arizona Ter	4,493	11,090 76	161,232 09	840 20	.....	.....	.....	.....	.....	921 14	210 00
Arkansas	46,691	17,411 70	1,076,799 53	6,168 55	.....	406,984 00	4 16	2,029 28	30 90	1,005 23	1,442 13
California	80,316	20,753 12	1,905,843 14	10,827 30	.....	1,424,060 65	88 16	12,031 57	2,464 18	43,990 03	43,938 72
Colorado Ter	34,720	14,426 07	654,085 45	3,894 65	.....	336,408 68	56 58	5,141 34	330 67	41,212 63	2,124 94
Connecticut	81,528	10,139 17	1,165,377 41	7,973 44	.....	438,485 00	22 37	14,654 00	513 95	35,677 18	8,633 46
Dakota Ter	6,798	1,519 58	117,041 55	720 70	.....	9,050 00	98 14	1,180 37	.....	182 50	314 50
Delaware	12,376	1,733 36	173,279 16	1,129 00	.....	3,165 00	.....	5,197 00	390 88	2,878 50	1,556 58
District of Columbia	31,330	8,484 04	581,456 29	3,427 05	.....	1,365,641 71	.....	.....	832 55	8,470 44	6,904 24
Florida	36,843	28,488 03	919,361 62	5,171 85	.....	198,242 90	1 83	350 86	56 77	4,787 19	1,700 27
Georgia	81,480	53,085 76	1,315,484 41	8,292 75	691 53	1,003,954 88	119 21	3,562 00	656 50	6,389 36	8,357 14
Idaho Ter	4,744	7,380 88	156,267 50	837 40	161 36	68,985 28	5 40	1,280 00	97	7,889 70	392 46
Illinois	564,560	90,635 36	7,615,902 63	50,690 95	323 54	7,336,307 51	140 03	37,800 94	5,250 97	49,245 31	34,506 31
Indiana	265,140	44,627 91	3,594,040 66	23,544 00	.....	1,278,749 05	161 28	16,235 19	1,172 59	18,638 14	12,841 33
Indian Territory	719	69 45	17,269 19	97 90	.....	.....	.....	.....	.....	.....	.....
Iowa	343,252	57,074 59	4,753,578 92	31,518 80	.....	1,785,790 60	168 76	13,109 98	936 83	9,688 39	10,515 91
Kansas	130,060	29,808 01	1,965,877 90	12,707 70	.....	829,341 13	345 18	12,797 46	33 39	3,127 28	1,227 77
Kentucky	86,319	15,514 21	1,236,271 97	8,034 80	.....	912,298 00	44 16	5,776 65	493 97	5,123 32	5,761 62
Louisiana	47,201	45,689 17	1,085,795 46	6,176 30	1 25	1,645,114 81	191 35	128 00	409 89	8,896 70	2,179 84
Maine	79,039	20,144 72	1,384,398 60	8,480 90	.....	600,788 00	86 98	7,485 52	198 13	74,016 79	4,926 32
Maryland	60,587	11,098 70	959,462 32	6,043 90	.....	1,338,858 00	4 66	4,963 38	911 13	8,658 06	19,452 35
Massachusetts	180,171	38,850 54	2,912,806 72	18,172 30	.....	1,948,139 75	174 10	40,135 91	997 98	106,771 17	18,035 90
Michigan	279,132	55,385 01	3,873,167 81	25,083 75	.....	1,883,699 00	293 80	13,629 23	2,042 63	47,091 37	16,078 16
Minnesota	101,685	27,735 11	1,645,391 41	10,664 50	.....	664,336 79	1 78	1,508 00	83 60	3,773 22	6,174 28
Mississippi	91,031	33,539 04	1,732,973 30	10,490 45	94 92	9,660 38	.....	1,268 67	40 98	1,131 73	602 99
Missouri	202,064	55,543 55	3,028,465 90	19,478 35	9 21	3,589,891 86	1,070 05	20,521 44	1,320 18	16,485 94	8,223 06
Montana Ter	8,973	4,904 97	188,396 00	1,106 35	.....	92,579 00	.....	25 00	.....	2,041 56	2,703 78
Nebraska	60,292	22,674 73	985,688 66	6,208 60	.....	919,755 00	25 34	16,736 00	61 62	2,013 58	1,993 46
Nevada	11,988	5,276 00	341,846 70	1,863 75	.....	.....	.....	.....	252 51	8,269 21	5,746 46
New Hampshire	59,631	7,570 80	772,670 97	5,048 60	.....	78,895 00	179 20	5,483 68	32	12,922 14	1,596 97
New Jersey	64,691	9,273 19	996,646 98	6,305 75	.....	160,489 00	50 25	18,568 68	401 49	34,739 66	13,941 93
New Mexico Ter	7,233	2,879 04	210,284 43	1,146 15	.....	106,492 02	20 72	30 00	.....	262 51	1,109 03
New York	396,010	183,998 63	5,829,800 12	37,449 45	.....	16,529,273 99	295 18	93,393 97	34,309 46	212,457 54	191,228 05
North Carolina	79,808	18,510 23	1,559,097 21	9,391 15	.....	201,665 00	107 64	3,174 00	27 07	1,725 91	6,309 77
Ohio	399,041	48,211 09	5,179,790 61	34,831 90	.....	3,244,465 05	451 90	99,304 04	2,333 99	50,002 50	21,337 81
Oregon	19,289	16,212 81	387,889 19	2,324 60	.....	281,237 00	34 23	1,434 68	699 33	4,270 14	4,282 72
Pennsylvania	270,172	51,144 84	3,692,457 98	24,379 20	10 96	2,766,634 98	497 93	45,596 34	2,789 58	89,483 92	33,727 18
Rhode Island	25,804	2,870 30	413,848 42	2,580 00	.....	102,986 00	4 04	1,736 00	69 24	26,429 80	3,241 48

Statement showing the transactions of the Money-Order Office of the United States, &c.—Continued.

States and Territories.	Number of orders issued.	Balance from last year.	Amount of orders issued.	Revenue.		Drafts and deposits received.	Balance due postmasters.	Transferred from—			
				Total fees received.	Premiums.			Postage-fund.	Swiss fund.	British fund.	German fund.
South Carolina	54,956	$17,674 56	$982,990 18	$6,041 20	$191 26	$578,068 11	.....	$916 84	.....	$1,586 47	$774 40
Tennessee	96,913	46,355 19	1,775,874 34	10,792 50	43 75	1,790,443 34	$37 10	38,522 64	$1,094 51	4,373 48	4,388 01
Texas	98,421	63,404 02	2,013,573 42	11,878 85	29 25	920,793 80	6 91	34,703 55	313 34	8,872 57	8,214 70
Utah Ter	10,500	4,499 55	265,308 23	1,480 25	.....	250 00	6 13	1,617 00	571 81	8,559 51	2,740 39
Vermont	58,200	10,125 60	824,315 74	5,423 05	.....	91,420 00	119 17	6,777 86	17	5,813 21	1,093 20
Virginia	81,974	19,251 04	1,245,721 04	8,424 15	.....	1,475,818 00	21 52	7,150 89	709 09	12,728 41	6,258 12
Washington Ter	7,105	2,909 10	178,098 38	1,006 05	.....	8,123 00	.....	355 00	.....	1,434 97	1,870 99
West Virginia	39,206	5,673 29	492,357 88	3,151 65	.....	58,950 00	48 44	4,510 72	1 17	3,865 44	1,744 09
Wisconsin	234,140	60,654 17	3,624,042 79	23,116 70	.....	2,176,177 00	209 58	9,936 63	2,782 04	16,773 28	17,800 80
Wyoming Ter	8,254	2,682 44	162,316 76	1,044 90	.....	.....	.....	17 06	.....	1,005 23	51 18
Total	5,006,323	1,326,532 70	77,431,251 58	493,011 44	1,705 63	61,439,398 94	5,166 79	611,412 30	65,667 56	1,020,776 81	563,667 78

Statement showing the transactions of the Money-Order Office of the United States, &c.—Continued.

States and Territories.	Number of orders paid.	Amount of orders paid.	Amount of orders repaid.	Transferred to—				Deposits.	Expenses.	Commissions and clerk-hire.	Balance due the United States.	Miscellaneous.
				Postage-fund.	Swiss fund.	British fund.	German fund.					
Alabama	30,291	$598,650 86	$7,005 95	$320 00	$171 00	$503 45	$457 71	$1,366,449 99	$353 38	$5,105 78	$18,401 55	.....
Arizona Ter	655	24,472 33	770 94	.....	.....	1 39	32	137,296 00	.....	343 19	11,417 62	.....
Arkansas	19,640	530,506 56	7,823 48	37,248 72	11 00	539 84	1,701 57	916,396 77	580 54	3,030 98	14,636 02	.....
California	40,626	1,270,724 72	13,517 74	618 32	148 05	2,430 21	3,869 23	2,137,726 65	126 80	8,790 86	25,654 73	$278 56
Colorado Ter	21,020	515,632 51	5,611 40	800 00	.....	1,031 56	1,167 19	517,190 68	118 66	2,525 36	13,602 65	.....
Connecticut	71,019	1,107,024 24	6,381 39	116 09	335 32	1,709 83	3,295 94	547,683 97	63 10	5,128 04	9,697 53	47 02
Dakota Ter	3,228	64,373 76	963 20	200 00	.....	55 10	1,558 56	61,332 79	.....	401 08	1,222 55	.....
Delaware	8,060	127,549 32	655 19	.....	1 05	327 91	111 92	58,166 00	3 00	695 10	1,784 93	35 06
District of Columbia	38,620	607,705 05	3,504 60	.....	70 00	.....	940 00	1,341,276 00	3,259 14	4,434 35	14,027 18	.....
Florida	12,572	320,633 56	4,353 14	191 24	27 60	433 39	272 50	803,683 90	236 06	2,484 15	25,654 64	191 05
Georgia	63,750	1,141,531 63	9,250 60	1,052 49	32 78	797 37	434 40	1,193,989 78	63 05	5,361 59	50,016 59	63 26
Idaho Ter	759	28,125 48	594 65	143,009 00	.....	131 16	580 79	66,091 28	.....	348 42	3,432 63	37 54
Illinois	680,506	9,014,642 16	47,697 93	8,371 21	1,676 80	8,994 48	47,760 24	5,966,682 73	3,400 28	36,491 25	84,771 26	294 28
Indiana	146,524	2,304,529 85	21,114 32	5,092 12	1,185 96	2,911 62	15,098 09	2,516,469 73	519 23	12,785 18	40,198 96	145 09
Indian Territory	83	2,059 49	55 00	.....	.....	.....	.....	15,103 00	.....	37 78	181 27	.....
Iowa	185,739	3,230,527 44	20,195 51	6,039 88	1,310 47	3,973 41	22,480 69	3,297,027 00	137 25	17,101 27	57,371 06	218 74
Kansas	108,199	2,102,226 78	12,782 27	2,758 00	1,056 60	7,974 77	10,266 14	685,341 41	107 46	9,569 53	23,133 27	69 59
Kentucky	90,352	1,584,288 96	7,619 18	.....	222 00	1,311 54	2,754 79	562,213 71	8 06	7,061 20	13,803 15	36 09
Louisiana	50,431	1,256,168 54	6,232 14	65 91	1,098 84	494 66	6,280 22	1,472,509 86	4 66	4,637 23	47,142 02	18 69
Maine	61,050	1,136,387 04	5,720 45	400 00	.....	1,638 99	386 64	998,630 00	64 82	5,525 75	20,319 11	44 16
Maryland	96,685	1,970,048 44	6,216 71	76 14	36 00	1,964 97	4,213 68	346,836 85	20 00	7,412 03	12,607 68	.....
Massachusetts	310,696	4,049,644 54	18,336 29	358 00	199 78	4,818 28	2,646 65	967,040 75	287 95	18,071 25	24,709 66	61 22
Michigan	188,928	3,048,314 40	24,569 83	1,347 23	116 79	4,575 66	19,435 11	2,753,530 10	39 50	13,891 33	50,511 34	139 47
Minnesota	64,128	1,168,354 51	11,421 97	800 00	544 55	2,254 51	24,901 71	1,118,306 00	122 40	6,596 40	26,297 16	69 48
Mississippi	24,950	454,650 70	11,717 09	390 00	56 70	1,057 72	869 72	1,283,031 51	494 19	4,468 97	32,956 12	109 74
Missouri	279,868	5,070,288 78	22,053 49	227 40	2,559 59	3,724 45	18,580 70	1,578,169 72	454 10	19,077 70	23,325 15	555 46
Montana Ter	2,355	67,958 62	1,473 31	.....	.....	23 34	384 64	212,568 00	41 11	554 71	8,746 93	.....
Nebraska	43,648	892,495 54	7,198 82	607 26	198 00	4,051 59	14,165 41	1,005,060 00	7 65	4,674 02	20,549 33	137 37
Nevada	1,656	57,112 03	2,119 77	.....	.....	264 05	446 98	297,815 00	3 50	436 13	5,057 17	.....
New Hampshire	36,291	611,464 32	3,262 07	692 00	.....	774 03	126 80	258,102 00	27 58	3,210 95	6,772 81	168 12
New Jersey	57,286	919,568 25	6,746 92	155 00	615 04	5,123 76	13,683 46	280,744 00	8 00	4,033 44	9,627 29	111 77
New Mexico Ter	1,313	39,726 71	551 02	.....	.....	6 22	81 00	336,147 49	3 75	481 35	5,236 36	.....
New York	942,924	11,496,157 42	49,721 34	266,868 61	30,967 75	679,945 12	275,372 84	10,064,346 14	3,067 60	46,862 65	198,497 11	269 81
North Carolina	32,295	611,325 51	5,735 11	6,790 00	04	649 62	410 53	1,149,540 44	69 60	4,661 89	20,812 38	12 36
Ohio	417,904	5,928,077 02	33,162 29	179,609 00	1,972 05	11,104 27	23,668 40	2,445,808 68	191 04	23,142 29	49,403 24	590 61
Oregon	8,195	235,306 07	2,697 80	168 55	.....	9 95	829 56	441,417 00	37 74	1,587 49	16,232 05	8 49
Pennsylvania	346,757	4,629,606 84	26,013 71	5,228 16	2,704 95	18,824 96	29,235 88	1,928,308 90	3,061 43	19,300 79	43,894 40	542 89
Rhode Island	17,570	326,431 43	2,818 10	.....	76 00	794 73	479 00	218,784 00	38 40	1,463 51	2,880 11	.....

Statemnt shcowing the transactions of the Money Order Office of the United States, &c.—Continued.

States and Territories.	Number of orders paid.	Amount of orders paid.	Amount of orders repaid.	Transferred to— Postage-fund.	Swiss fund.	British fund.	German fund.	Deposits.	Expenses.	Commissions and clerk-hire.	Balance due the United States.	Miscellaneous.
South Carolina	28, 197	$529, 235 10	$5, 618 06	.....	$0 11	$227 09	$407 56	$1, 035, 190 11	$18 90	$3, 234 45	$14, 311 64	.....
Tennessee	79, 977	1, 537, 686 03	12, 031 84	$38, 205 50	239 39	726 17	1, 777 91	2, 039, 704 03	2, 304 21	7, 382 40	31, 744 29	$93 15
Texas	54, 267	1, 139, 494 35	16, 173 74	12, 163 00	733 73	1, 092 30	11, 468 15	1, 812, 100 80	51 60	5, 740 70	69, 407 32	344 72
Utah Ter	5, 556	145, 655 00	1, 492 65	425 00	36 00	1, 348 30	93 00	130, 960 00	.....	923 78	4, 090 14	.....
Vermont	35, 322	587, 261 41	3, 003 18	.....	.....	479 54	67 58	339, 890 00	.....	3, 275 97	11, 027 17	90 15
Virginia	67, 021	1, 172, 938 81	7, 299 20	156 46	165 00	2, 899 25	1, 697 97	1, 664, 730 00	110 15	5, 702 32	20, 515 46	47 64
Washington Ter	2, 424	82, 065 65	1, 188 05	35 00	.....	203 93	438 72	105, 530 00	10 00	540 41	3, 785 73	.....
West Virginia	14, 969	274, 511 68	2, 908 45	194 00	545 00	350 32	840 92	289, 617 00	25 00	1, 436 77	6, 853 19	20 35
Wisconsin	155, 440	2, 821, 692 01	21, 468 43	1, 330 00	3, 348 14	7, 177 98	51, 493 05	2, 953, 602 00	139 52	14, 171 89	56, 859 94	217 03
Wyoming Ter	2, 711	45, 522 28	1, 499 38	.....	.....	167 71	287 72	135, 376 00	.....	462 09	3, 802 39	.....
Total	4, 952, 747	76, 865, 353 75	496, 337 00	722, 109 20	52, 475 08	789, 816 50	617, 418 68	61, 776, 487 76	19, 919 41	354, 635 77	1, 258, 979 08	5, 089 50

J. M. McGREW, *Auditor.*

OFFICE OF THE AUDITOR OF THE TREASURY FOR THE POST-OFFICE DEPARTMENT,
Washington, D. C., September 30, 1875.

REPORT

OF THE

COMMISSIONER OF AGRICULTURE.

DEPARTMENT OF AGRICULTURE,
Washington, October 26, 1875.

SIR: That branch of the industry of the country which is so largely committed to the care of this Department presents a wide field for the exercise of learning and science, the ingenuity of practical experience, and the application of sound judgment; and I am pleased to believe that all these are at this moment greatly stimulated by the manifestly valuable results of the practical operations of agriculture which are constantly attained by their aid. Farmers and planters now realize that there is something else in this important work beyond the mere drudgery of sowing, reaping, and curing. Men of science and learning have turned their attention to the subject, and have so plainly and interestingly illustrated the nature of plants, the purposes to which they may be applied, their cultivation and products, as well as the injurious insects which depredate upon them, as to make the subject intelligible to the plainest comprehension and it gives me great satisfaction to know that the work of this Department has kept pace with all the light which knowledge has cast upon the subject, and made it practically available to the agriculturists of the country.

The Department has taken the utmost pains to keep itself informed of all improvements or new discoveries which affect the interests of the farmer, whether it be in the kind or quality of seed, the best mode of its cultivation, the implements best adapted to the purpose, and the quality of soil and condition of climate congenial to its growth; and in the distribution of seeds the Department takes no risk as to the quality, always taking care that they shall be the very best of their kind, and adapting each to that locality where the product will be the most profitable, impressing upon the minds of all to whom they are sent that their community will be benefited by the result of their experiments. A correspondence with all parts of the country gives me the assurance of the wonderfully beneficial results which have been attained by this distribution of superior seeds. Farmers are now more than ever convinced that the success of their crops is in a great measure dependent upon the quality of the seed they sow. I do not hesitate to say that the crops of wheat

and oats in this country have been increased many millions of bushels by reason of the qualities of seeds distributed by this Department. The occupation of the farmer necessarily isolates him from the sources of information with regard to the progress and improvement which are always being made in his business; hence the inestimable value of the central point which this Department affords for the collection of facts and seeds, and their periodical distribution to those who have no other opportunity of obtaining them. And when we consider how the hopes and interests, and, indeed, the prosperity of our country, are dependent upon the success of agriculture, it is not wonderful that Congress should exercise a guardian care over it.

During the past year, a most destructive dispensation of grasshoppers was visited upon several of our Western States—Missouri, Minnesota, Kansas, and Nebraska, and, to some extent, Colorado and Dakota. In many places the destruction of all vegetable life was total, threatening not only the existence of the population for the time being, but depriving them of all hope of the means of planting for the next season, the possible result of which was the depopulation of the whole country thus afflicted. But Congress wisely interposed, and, through the instrumentality of the Quartermaster's Department of the Army, supplied the absolute necessities of the people, and through this Department made provision for a supply of seed for the coming year by an appropriation of $30,000. I cannot adequately express the idea of the benefit and encouragement which were thus bestowed upon a people who were almost left without hope. A correspondent, in acknowledging the receipt of seed sent him, says: "The seed is most acceptable, for it relieves me from a state of hopelessness; but it cannot do me half as much good as it does to know that we have a Government that cares for her distressed people."

The repeal of what is mistakenly called the "franking privilege" has materially disturbed the operations of this Department for the past three years. It is, in my judgment, one of the defects in the organization of our Government that the people are not sufficiently conversant and intimately connected with its political operations. The repeal of the law, which rendered it necessary for members of Congress to send, free of charge, through the mails, seeds, letters, and documents, while it relieves them from an onerous labor which it is their duty to perform, deprives the constituent of a knowledge of the operations of the Government which he ought to have, and serves to alienate him in a measure from the institutions of his country. It takes from him the impression that he has a representative here who cares for his wants and necessities. While this Department, under existing laws, has the right to "frank" seeds and documents, and has nothing more to desire on that point, I have constant occasion to know and appreciate the importance that the same duty should devolve upon the Representative in Congress. As the law now is, the Representative after the meeting of the next Con-

gress will have no right to communicate with his constituent but at his own expense. It is because the right to frank does not belong to the Representative that the reports of this Department have not been printed in the usual numbers for the last three years. If it be the pleasure of Congress to make the usual appropriation for the purchase and distribution of seeds and documents, and make no appropriation for their distribution by members of Congress, then the present clerical force of this Department must be increased by at least six clerks. With the present force of the Department, the work could not be done; nor with any force could it be so well done as by the Representative, because of his superior knowledge of the individuals to whom seeds and documents may be most profitably sent. In the interest of this Department, I trust that the annual appropriations for seeds may be continued; that its annual reports may be fully published; and that the Representative may be allowed to choose to whom they may be sent.

There is, perhaps, no one subject of agricultural production in which I have taken more interest than in that which relates to fibrous plants, especially ramie and jute. These have been brought into notice within the last four years through the influence of this Department; and now they are about to assume an importance which is only beginning to be known. Both these plants will grow successfully in all our Southern States, and especially in California. The impediment heretofore to their production has been the difficulty of separating the fiber from the gummy principle and green covering of the plants. But this problem, it is believed, has been now solved by the invention of machinery which, by the aid of certain acids, separates the fiber perfectly and economically. The ramie is a native of India and China, where the work of separating the fiber is done by hand at a cost of $150 per ton. The latest patentee of a machine for separating the fiber claims that the cost of separating it will not exceed $30 per ton. It is a beautiful and lustrous staple, in strength and brilliancy almost equal to silk; in fact, most of the dress-goods made to imitate silk fabrics are made in part of ramie, and its value now in England is about £75, or $375, per ton; and it is said that in California 1,200 pounds of this fiber may be produced on one acre. If these anticipations be realized, of which there is now a reasonable hope, the country may anticipate the prosecution of a new, useful, and profitable industry. Jute produces a fiber of a coarser quality, but admirably adapted to cordage and bagging, and, because of its length and strength, greatly superior to either flax or hemp.

The statistical division of the Department has with industry and energy responded to the usual requirements of Congress, agricultural associations, and commercial boards, and to the necessities of international exchanges of agricultural statistics, in addition to current crop-reports and other local statistical investigation. The estimates, as a rule, have been strikingly verified, especially as to the principal crops of the older and more settled States. The resources of the Department

have not been adequate to a full and accurate showing of the wonderfully rapid progress of the new and more distant States and Territories. The estimate of the cotton-crop of 1874, 3,300,000 bales, which was declared ten months ago by commercial authorities to be half a million bales too low, has been proved by the cotton-movements of the year to be within a few thousand bales of the actual crop.

This division will prepare a series of outline-maps, diagrams, and charts, to illustrate the changes in production and the geographical distribution of the principal crops, for the National Centennial Exhibition; and the statistician will present a statistical report of the agricultural progress of the past century.

The attention of Congress is called to the proposed organization of this division as indicated in the schedule of annual estimates. This division of the Department has about five thousand regular, appointed correspondents. I know no branch of the public service in which so much is accomplished with so small an expenditure. It is literally true that nine-tenths of the labor performed is gratuitous, that of our correspondents being entirely uncompensated, except by the reports of the Department and seeds sent them for experiment.

The operations of the horticultural division of the Department consist largely in the propagation and distribution of economic plants. Encouraging returns are received relative to the growth and adaptability of the Chinese tea-plant over a very large area of this country. These indications tend to increase the probability that at no distant day it will be deemed expedient to attempt the cultivation of this plant as an article of commerce, and even now as an aid to domestic economy. The arboretum yearly increases in the number of plants and interest in their growth. Within the past year over two hundred species and varieties of willow have been set out in permanent locations. The character and grouping of the trees will yearly become more decided, and develop the landscape effect of the original design. Time is an essential element in this, which can only be partially accelerated by the varied operations of careful culture.

The chemical division is doing much valuable work. The laboratory is in a good condition, and fairly stocked with chemicals and apparatus, and altogether in good working order. Investigations have been prosecuted upon various subjects which pertain to the interests of agriculture, among which are: the proximate composition of two varieties of sugar-corn; the influence of caustic magnesia in lime produced by calcination of magnesian limestone, upon so-called lime-soils; the influence of arsenical compounds, when present in or applied to soils, upon vegetation; and the influence of illuminating-gas upon vegetation—all of which are practical subjects of great interest to the agriculturist. The analytical results of the first investigation will be found in the Monthly Report of April of this year. That of the analysis of magnesian limestone, and observations upon the action of lime produced from

them upon certain lime-soils, prove quite satisfactorily that, while magnesian lime may be applied with impunity to clay-soils, it cannot be applied to other soils except in dry seasons, and that even then it is detrimental, from the fact that the action continues through more than one season. The investigation upon the influence of arsenical compounds proved of great interest from the fact that arsenic has been so extensively used throughout the country, in the form of Paris green, for the destruction of noxious and injurious insects. It is found that although arsenic seems to exercise a destructive physiological influence upon the roots of plants with which it comes in contact, yet, after complete maturation, no trace of this element can be found within the tissues of the plant. Small quantities, however, may be applied to the soil without producing any physiological effect or deteriorating the growth of the plant. The investigation with regard to illuminating-gas results in the conclusion that two per cent. of it continually present in the atmosphere will produce the death of the plant.

Inquiries are constantly made from all parts of the country on chemical subjects, most of them pertaining to agriculture, but many of them asking for analyses of minerals and other substances which have no connection with it. The former are carefully attended to, while the Department uniformly declines to investigate any subject which is not of interest to the agriculturist.

The general awakening of interest in agricultural subjects has induced a considerable correspondence with the botanical division. Information of a practical character respecting the nature, properties, and uses of different kinds of plants has been sought for by correspondents from all parts of the country, and the desired information has been communicated. The herbarium continues to be improved and enlarged to an extent which will require additional conveniences, first, by the purchase of a collection of over 400 species of marine algæ; secondly, by the purchase of a valuable collection of 1,500 species of Swedish plants; thirdly, by a collection of 300 species of European mosses, donated to the Smithsonian Institution, by Dr. August Gathinger, of Nashville, Tenn.; and, fourthly, by several small but valuable contributions of American plants from various sources, especially that from the expedition of Lieutenant Wheeler in 1874.

During the year, quite extensive distributions of duplicate plants have been made, chiefly as follows: To Massachusetts Agricultural College; Cornell University, New York; Michigan University; Chicago Academy of Sciences; Illinois Wesleyan University; the Female College at Bordentown, N. J.; the Steubenville Seminary, Steubenville, Ohio; Monmouth College, Warren County, Illinois; Swartmore College, Pennsylvania; Northwestern University, Evanston, Ill.; Wesleyan University, Middletown, Conn.; Wellesley Female College, Wellesley Mass.; Wheaton Female Seminary, Norton, Mass.

This division has been making preparation to exhibit specimens of all the forest-trees of the country at the approaching Centennial.

The correspondence with the entomological division has been much increased during the past season, mainly by the widespread devastation of the grasshopper in the Western States and the rapid advance of the Colorado beetle in the East into new territory where the latter insect was before comparatively unknown. A fine series of beetles, butterflies, and wild bees has been added to the cabinet of entomology by Lieutenant Wheeler, through the Smithsonian Institution, collected west of the one hundredth parallel; and other collections have been received. The work of making perfect *fac similes* of the fruits and vegetables of our country has steadily progressed; and the value of the collection for the practical study of pomology is much appreciated. A catalogue of these models has been commenced, which will much facilitate their study.

Preparation is being made in this division for a collection at the International Exhibition at Philadelphia, which will embrace models of fruits and vegetables grown in the United States; and a collection of grains, cereals, seeds, nuts, animal and vegetable fibers, and the manufactures, such as wools, silks, ramie, cotton, flax, hemp, jute, &c. In the ornithological and natural-history collection it is proposed to show such of our native birds and animals as are peculiarly beneficial and injurious; the different varieties of our gallinaceous birds in their true breeds, together with the new varieties recently introduced. In entomology, it is proposed to show a collection of beneficial and injurious insects, arranged, together with a complete set of engravings of the most common destructive and useful insects of the country.

The library of the Department has been more largely increased during the past year than in any that preceded it, by the purchase of a few valuable works, but more particularly by the contributions of foreign countries and societies.

The microscopic division of the Department has been engaged during the past year principally in original investigations relating to animal and vegetable diseases of fungoid origin. Pear-tree and apple-tree blight have received special attention, and many microscopic observations have been made to ascertain whether the growth of parasitic fungi on plants is the cause or the result of the blight. Cranberry-rot, grape-rot, orange-tree blight, and hawthorn-blight have also been considered, and experiments made to ascertain their causes and discover remedies for their cure. It is believed that new facts have been developed from the investigation of these diseases which will lead to a more intelligent and successful treatment of them.

Many of the grape-growers of New Jersey have suffered severely from the rot of the grape. All investigations on this subject have been confined to specimens sent to the Department, the result of which, when sufficiently advanced, are published in the monthly and annual reports of the Department. The orange-cultivators of Florida have suffered severely from a new form of disease, which blackens the surface of a

large portion of the fruit, and blights the branches, causing them to decay. This subject will occupy the attention of the microscopist.

A large collection of American species of fungi of the order *Agaricini* has been made for the purpose of making known more generally the distinguishing characteristics of those which are edible and such as are poisonous. Since many thousand dollars are expended annually in the United States for the purchase of imported compounds of edible mushrooms, it is deemed important to prepare and publish such information as may lead to a scientific cultivation of all the edible species in this country. Considerable time has been devoted to the collection of leading types of other families of parisitic fungi destructive to cultivated plants, several hundreds of which have been carefully and artistically drawn in natural colors, the species having been fully identified and the names given by high authority in this country and Europe, and are intended for exhibition at the approaching Centennial at Philadelphia.

A series of experiments has also been conducted with special reference to antiferments, with the view of discovering the best methods of preserving specimen fruits and foliage in their natural colors, by which new and successful results have been obtained.

The accompanying tabular statement shows the quantities and kind of seed distributed by the Department, under the general appropriation, from July 1, 1874, to June 30, 1875, inclusive; also, the amount issued under the special appropriation "to the sufferers by grasshopper ravages;" all classed under their respective heads.

The past year has been one of unusual activity in the seed division, and the work accomplished has been nearly double that of the previous year. To make a distribution of so large an amount of seeds in the proper season was a work of considerable magnitude, and required the best efforts of every employé of this division, and which, I am pleased to say, was accomplished in a very satisfactory manner. The want of room to employ more force was a difficulty to be encountered, and the expedient resorted to under the circumstances was to add two hours to the working-time of each day during the months of February, March, and April, which was done with satisfactory results. All this extra work was caused by the special appropriation for the benefit of those States which suffered by the ravages of the grasshoppers. To furnish them with such seeds as were most needed was the desire of the Department; and it was soon ascertained, by the large number of letters received daily, that vegetable-seed was the kind most desired. Accordingly the Department made arrangements to procure large quantities of vegetable-seed of the best quality, and the kinds most desired and best suited for immediate use. And I take this opportunity to say that some of our seedsmen showed a very generous spirit by offering to furnish the Department, for this purpose, the very best quality of seeds at greatly-reduced rates, which was availed of. The manner in which these seeds were distributed was principally through members of Congress in their

respective States, boards of relief, and individual application, thereby reaching all classes who were in want; and, as far as I know, not one applicant was refused out of the thousands who made application.

It will be seen from the tabular statement, that, in addition to the large amount of vegetable-seeds, other kinds have been distributed, such as wheat, oats, rye, corn, field-pease, sugar-beet, tobacco, &c. This does not, however, include the wheat bought by the Department and distributed by the governor of Minnesota, which, if added to our distribution, would increase it largely. The value of the vegetable-seeds alone which were distributed to the grasshopper districts, at five cents a paper, (and that is a very low estimate,) would amount to over $35,000, showing conclusively that, by proper management and economy, the work was done more cheaply by the Government than it could have been done by individuals appointed for the purpose. Our general distribution embraces all kinds of seeds of known or reputed value to the American agriculturists. These seeds have been selected, in this and other countries, with great care, and distributed through the various agencies adopted by the Department for that purpose.

How far the Department has been successful in this respect, it is only necessary to glance at the many reports received testifying to the good quality of the seeds. In nearly all cases they report that the Department seeds are far superior to the old varieties grown in their respective districts; and these reports are not confined to any one section of country or to one class of seeds, but are from all parts of the United States and embrace all kinds of seeds, showing how much good can be and is being done through this Department.

By referring to the tabular statement, it will be seen that our general distribution has exceeded that of last year by over two hundred thousand packages, making the largest distribution in any one year since the organization of the Department.

The great want of the seed division is *more room*. During the past summer, a structure has been erected which will give temporary relief in stowing away the grain and other seeds until needed for distribution.

This division is working very harmoniously in all its branches. A regular account is kept of all seeds bought by the Department, from whom purchased, and the cost of the same, and all materials used. In the distribution, everything is charged to its respective account kept for that purpose; and any information in regard to the kinds of seed sent, to whom, &c., can be readily obtained.

Tabular statement showing the quantity and kind of seed issued from the Department of Agriculture under the general appropriation, from July 1, 1874, to June 30, 1875, inclusive; also, amount issued under special appropriation to the sufferers by grasshopper ravages.

Description of seed.	Varieties.	Senators and members.	Agricultural societies.	Statistical correspondents.	Miscellaneous.	Grasshopper ravages.	Total.
Vegetable.....papers..	278	234,165	108,963	92,100	514,839	703,989	1,654,058
Flower.....do....	227	138,158	215	20	199,567	.....	337,960
Herbs.....do....	10	66	.....	.....	100	.....	166
Tree.....do....	28	141	20	.....	2,902	494	3,557
FIELD-SEEDS.							
Wheat.....quarts..	5	13,712	22,220	12,530	4,903	318	53,683
Oats.....do....	6	8,738	24,602	7,988	5,608	7,544	54,480
Barley.....do....	3	1,882	2,334	1,206	865	318	6,585
Rye.....do....	1	5,709	.....	4,642	1,028	38	11,415
Buckwheat.....do....	1	110	8	5,174	544	78	5,914
Corn.....do....	3	644	1,122	1,986	1,430	209	5,391
Pease.....do....	1	816	52	.....	199	37	1,104
Clover.....do....	3	1,720	1,190	2	1,516	359	4,787
Grass.....do....	4	4,265	1,310	4,322	3,101	678	13,676
Sugar-beet.....do....	3	672	2,272	2	194	119	3,459
Mangel-wurzel.....do....	2	800	1,666	.....	184	41	2,691
Rice.....do....	1	24	.....	.....	18	.....	42
Sorghum.....do....	1	44	.....	.....	286	159	489
Tobacco.....papers..	6	47,028	6	30	6,379	2,620	56,063
Opium-poppy.....do....	1	50	.....	.....	272	.....	322
Osage orange.....half pints..	1	3	.....	.....	24	4	31
Millet.....quarts..	1	38	.....	.....	32	.....	70
Broom-corn.....do....	1	10	.....	.....	14	.....	24
Rape.....half pints..	1	8	.....	.....	6	.....	14
TEXTILES.							
Cotton.....quarts..	2	1,193	802	.....	1,074	26	3,095
Jute.....do....	1	134	.....	.....	85	.....	219
Hemp.....do....	1	69	4	.....	1,700	.....	1,773
Flax.....do....	1	2	.....	.....	6	.....	8
Ramie.....papers..	1	144	.....	.....	312	.....	456
Grand total.....	.....	460,525	166,788	130,008	747,186	717,025	2,221,532

In the fiscal division of the Department the books of accounts are kept with the utmost accuracy, exhibiting all its pecuniary transactions in the most minute detail.

The following table exhibits, in a condensed form, the appropriations made by Congress for this Department, the disbursements, and the balance to be covered into the United States Treasury, for the fiscal year ending June 30, 1875:

Title of appropriation.	Amount appropriated.	Amount disbursed.	Amount unexpended.
Salaries	$77,180 00	$77,127 60	$52 40
Collecting statistics	15,000 00	12,047 56	2,952 44
Purchase and distribution of seeds	65,000 00	64,719 83	280 17
Furniture, cases, and repairs	4,200 00	4,013 40	186 60
Experimental garden	8,000 00	8,000 00	.....
Museum and herbarium	4,500 00	2,434 31	2,065 69
Laboratory	1,300 00	1,300 00	.....
Library	1,500 00	1,087 30	412 70
Contingent expenses	12,600 00	10,330 46	2,269 54
Improvement of grounds	16,100 00	16,023 45	76 55
Postage	52,000 00	42,673 00	9,327 00
Printing and binding	20,000 00	16,973 12	3,026 88
Publishing reports of 1872 and 1873	50,000 00	49,561 91	438 09
Special distribution of seeds to sufferers from grasshopper ravages.	30,000 00	30,000 00	.....
Total	357,380 00	336,291 94	21,088 06

The amount to be covered into the Treasury will be slightly reduced by obligations incurred by the Department during the last fiscal year that are yet unsettled.

My experience in the past four years teaches me that the people of the country estimate highly the beneficial influence which the operations of this Department exert upon its agricultural interests, and prompts me to say that any action which Congress may take to increase its usefulness will be highly acceptable. I speak with the more confidence on this subject from the intimate and extensive correspondence of the Department, where there are received from two hundred to four thousand letters every day, the larger number being in those seasons when the distributions are made of seeds and reports, the demand for the latter always exceeding our means of supply.

Which is respectfully submitted by your obedient servant,

FREDK. WATTS.

To the PRESIDENT.

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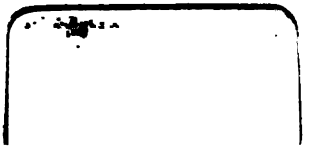
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